DECEMBER
1955

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# AMATEUR RADIO

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Melbourne, C.1.

## EDITORIAL

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## BALANCE

Those who have operated push-pull amplifiers know the need for maintaining proper balance in the drive applied to the final. Lack of balance leads to loss of efficiency, in fact, a waste of drive and power input.

It is not only in strictly technical matters that we have to aim for balance; we have to look at ourselves critically from time to time to see that we are keeping a proper balance in our approach to Amateur Radio. The Amateur's Code is clear and exceedingly concise on the matter. It sets out in no uncertain terms to remind us that Amateur Radio is a hobby and, as such, it should not be allowed to interfere with the duty owed to the home, to the job or to any other of the essential ingredients of our Society. A balanced outlook is particularly necessary here.

What about your view of other Amateurs? Do you scorn the c.w. operator as a purveyor of smoke signals in an atomic age or do you accept the fact that he is having a lot of fun without taking up much of the band? Do you growl at an s.s.b. operator for putting out an unreadable signal when all that's wrong is that you haven't mastered the technique for copying this method of transmission? Or are you such a confirmed brass pounder that you regard every phone operator as a potential splatterer?

We must also make sure that the Institute itself, as the representative body of the Australian Amateurs, acts in a level-headed way on all matters that come within its scope. Particular topics may, from time to time, require urgent action and may tend to obscure the broader view of the Institute's responsibility, but every individual action has to be related to the Institute's main objectives—to uphold the status of the Radio Amateur and to foster a friendly spirit among Amateurs.

The democratic constitution of the Institute gives every member the opportunity to express his views and to help in guiding the Institute along a proper course. With that opportunity goes the responsibility for the concerted action of the members. It is in responsibility for action that the need for a balanced outlook is most necessary. A balance that allows for the views of the other fellow and for the relationship between the Institute and the public will ensure that the drive put into our hobby produces the most efficient output in terms of interest in our hobby and maintenance of the high standing of the Radio Amateur in the eyes of the public.

The season for making resolutions is nearly here. Let us all resolve to maintain a balanced approach to the problems of the coming year. With the approach of the festive season, the Federal Executive on behalf of the Federal Council wish you all—

A MERRY CHRISTMAS AND A HAPPY NEW YEAR.

FEDERAL EXECUTIVE

## THE CONTENTS

# SCIENCE IN ANTARCTICA

BY HANS J. ALBRECHT,* VK3AHH

BLIZZARDS up to 100 miles per hour, drifting snow and a desert of ice and rocks as far as the human eye can reach—this is Antarctica! And yet, this mighty sixth continent may show a friendlier face; bright sunshine and fine weather are not uncommon.

No doubt, it is cold down there! In winter nights, temperatures drop to as low as —25 degrees Fahrenheit. Even in summer, Mawson is no Queensland holiday resort! Maximum temperatures are in the vicinity of 40 degrees.

And why, then, is this huge block of ice of any interest to us? The human race has always been inquisitive. Are we not planning space ships to investigate other planets and the space outside the earth? The age of discoveries belongs to the past, but it is still human objective to gain thorough knowledge of every spot on our own globe!

Famous explorer, Captain James Cook, set the Antarctic ball rolling as early as 1774. Since then, numerous scientific expeditions were successful in widening human knowledge on Antarctica. The establishment of the Antarctic research base at Mawson aims at continuing and extending these investigations in conjunction with the work done by other nations.

When the research programme commenced early in 1954, the immediate goal was the collection of data to form a sound basis for future expeditions on the mainland. Prior to this, much preliminary work had been done in the sub-Antarctic region. In 1947-48 permanent stations were set up on Heard and Macquarie Islands, of which the latter is still in operation.

Since 1949, the entire research programme has been directed, planned, and arranged by Mr. Phillip G. Law, Director of the Antarctic Division, Department of External Affairs. In his capacity as leader of the annual Australian expeditions, Mr. Law is also responsible for the all-important overall direction of actual research work performed at the research stations of Macquarie Island, Heard Island (until 1955) and Mawson.

Mr. Law is ably assisted by scientific personnel trained and experienced in all relevant fields of Science. To help towards successful evaluation of Antarctic data and adequate equipment of expeditions, experts of other scientific institutions are actively engaged in co-operative work.

Although the permanent research station was established only in 1954, observations so far already show some conclusive results. The additional equipment installed early in 1955, and the substantial expansion of the entire research programme planned for 1956 promise outstanding results. The programme may be subdivided into four main groups, namely, Geophysics, Geology, Meteorology, and Biology.

Australia intends considerable research contributions to the International Geophysical Year 1957-58, when physicists of all nations will concentrate on world-wide geophysical investigations. The expansions planned for 1956 necessitate more special equipment. Two aircraft will be stationed at the Australian research base. Their value is unquestionable for aerial investigations and assistance to field work. In addition, other important auxiliary equipment will soon be shipped to the icy continent.

* 10 Belgravia Ave., Box Hill North, E.12, Vic.

## GEOPHYSICS

Under this heading, let us have a closer look at investigations in **Radio Physics** and **Ionosphere, Geomagnetism, Seismology,** and observations of **Aurora and Cosmic Rays.** The first mentioned branch refers mainly to upper atmospheric research. Well known applications of Radio Physics are height measurements of the different ionospheric layers, observations of radio propagation phenomena and the prediction of same.

**General View of Australian Research Station at Mawson.**
A.N.A.R.E. Photo by W. R. Dingle.

Obviously, observations of propagation have practically been carried out by the radio communication work. During 1954, Mawson kept in constant touch with Sydney, Perth, Heard Island, and South Africa, for the purpose of meteorological and normal telegram traffic. Improvements being contemplated, additional communication equipment will be set up early in 1956.

During the International Geophysical Year 1957/58 recordings of ionospheric layers will be taken at Mawson by means of an ionospheric recorder. At this stage it is advisable to briefly review various types of such equipment.

Fundamentally, a complete ionospheric recording unit consists of transmitter, receiver, and indicator, for the study of ionospheric reflections. The transmissions are pulse-modulated so that a wave having been reflected vertically by the layer can be received in the normal fashion. The height of a layer is determined by the total time taken by the wave. The intensity of the reflected signal allows information to be obtained on the characteristics of the layer. Each of the ionospheric layers, i.e. E, F1 and F2 layers, is capable of vertical reflections up to a certain frequency, its critical frequency. To investigate variations of this frequency, the transmitter and receiver are equipped for continuously-variable operation between 1 and 20 Mc., say.

The simplest methods use manually controlled tuning and band-switching of a single stage transmitter and an appropriate receiver. The indication is achieved by a cathode ray oscillograph whose trace can be utilised for photographic recording. The presence of a person being required, this type is more suitable for single observations of special phenomena.

Another type consists of a two or three stage transmitter with automatic mechanical tuning. Special attention must be given to automatic band-switching. The main problem is adequate mechanical and electrical tracking of the whole device. However, accurate recording can be obtained by this method. A German recorder is known to have a total frequency range of 1-16 Mc., being tuneable in a period of eight minutes.

The third method uses a fixed pulse-modulated signal on about 30 Mc. and a variable oscillator with a range of 31-50 Mc. Both frequencies are mixed, thus resulting in a total range of 1-20 Mc. being covered without band-

switching. If wide-band amplification is employed, the only variable component is the oscillator 31-50 Mc. The mechanical requirements of the receiver can also be reduced to a minimum by mixing the incoming signal and the variable signal used for the transmitter. A constant i.f. of 30 Mc. is obtained and can be handled in the normal way. Ionospheric recorders of this type are generally designed to sweep through the complete range in a period of about 30 seconds.

The fundamental disadvantage of covering the entire range in a relatively short space of time is the inability of detecting eventual multiple vertical reflections between layer and ground. On the other hand, the short period makes this method particularly suitable for use in Arctic and Antarctic regions, where frequent changes of ionospheric characteristics are encountered. As far as is known to the writer, this principle has been employed very successfully in Kiruna (North Sweden), for a number of years. The recorder to be installed at Mawson in 1957 will also be of this type.

The study of **Ionospheric Winds** has recently become popular with scientists of this branch. Up to now, the only possible method of measuring winds in a height of 40-60 miles is the observation of the drift of meteor trails. Let us recall that meteors cause a certain ionisation on their path through the atmosphere, thus leaving an ionised trail. If the ionisation is sufficiently intense for a reflection of radio waves to take place, the drift of such trails can be observed until they have dispersed. Thus indicative information on "winds" in this part of the ionosphere can be obtained.

The operating frequency of such equipment is usually in the vicinity of 30 Mc. The use of an accurate beam antenna allows the direction to be determined. By employing pulse modulation, both transmitter and receiver may be installed at the same place. The installation of equipment of this type at Mawson is planned for 1956.

Another branch of Geophysics is called **Geomagnetism**, thus denoting the Science of the earth's magnetism. Let us recall that our good globe may be regarded, for demonstration purposes, as a magnetic solenoid, its poles being in the proximity of the geographical poles. Therefore, lines of force indicate curved paths, similar to those of a normal magnetic solenoid, and end at the poles. Without question, magnetic observations are of extreme interest in the regions close to the poles. Subdividing the total magnetic intensity into vertical and horizontal components, the latter obviously shows a much smaller intensity in polar regions than in, e.g. our latitudes. For this reason the vertical component is measured and forms, together with observations of inclination and declination, the scientific information on geomagnetic characteristics. Following preliminary investigations of the vertical intensity in 1954, a complete magnetic observatory will commence full operation in 1956.

**Seismology** is the Science concerning studies of earth tremors. The seismograph is the main instrument for obtaining data on maximum velocity and acceleration, amplitude, and direction of any vibration of the ground at and in a distance from the seismological observatory. The instrumental set-up at Mawson does not differ, in principle, from that used elsewhere. Seismographs normally consist of a heavy mass being flexibly connected to a frame which is fixed to the ground. Seismic vibrations cause the heavy mass to attain a movement relative to the frame. Amplitude and other characteristics of this movement may then be recorded. The recording can be achieved by a simple recording pen or by optical means. Also, the measurement of capacitance variations against a fixed plate can be utilised as indicator.

One of the most spectacular aerial displays is the **Aurora**. It normally appears in the form of a band or arc of more or less coloured light with rays of light streaming towards the band or arc. These may be pulsating or stationary. Very small particles, with electrical charge, so-called solar corpuscles, originate from the sun and reach the surroundings of the earth's atmosphere with high velocity. The magnetic field of our planet causes their diversion towards the poles. Upon bombardment by the solar corpuscles, the molecules of the atmospheric gas emit rays of visible light. The height of the aurora is governed by the maximum distance the corpuscles can penetrate into the earth's atmosphere. A minimum height of 50 miles is normal.

As has just been indicated, the frequency of occurrence of the aurorae is much higher in the polar regions. However, observations beyond these zones may be possible when the influx of solar corpuscles is particularly intense.

It is interesting to note that aurora displays are a visible indicator of ionospheric disturbances. The solar corpuscles also cause magnetic storms, i.e. abrupt changes in the magnetic intensity, due to extraordinary movements of electrons and ions within the magnetic field of the earth. In most cases, ionospheric and magnetic storms accompany each other. Such storms occur more frequently in polar regions than in other parts of the world.

Concluding our general discussion of the aurora, mention must be made of the obvious relation between the eleven-year cycle of sunspot activity and occurrence of the aurora. There is, however, a difference in "phase" of both cycles.

The basic method of scientifically observing the aurora is visual observations in connection with a theodolite for determining the direction of the display. The position in space can be found by parallactic photography. Aurora observations at Mawson began in 1954.

Although the study of **Cosmic Rays** actually belongs to Nuclear Physics, its discussion here is justified by its connection with Geophysics. Cosmic Rays were discovered about 45 years ago, and their actual origin is still unknown. It is, however, known that particles of considerable energy, viz., Protons, Alpha-Particles, etc., pass from space into the earth's atmosphere. In consequence, a number of nuclear processes occur in the atmosphere, resulting in modifications of the original radiation and, particularly, the formation of new particles. Among others, Mesons—particles with 200 to 300 times the mass of an electron—are known to be formed. Cosmic radiation has been found to vary with latitudes. Taking one thing with another, a lot of research work is yet to be done in all parts of the world.

Equipment for Cosmic Ray investigations was installed at Mawson in 1954. Generally, Geiger counter and cloud chamber are used for such observations. The latter allows the track of a charged particle to be observed. A number of

**Inside the Radio Hut; the relief party has arrived! Eric Macklin, VK1EM, taking over from Bill Storer, VK1EG.**
A.N.A.R.E. Photo by George Lowe.

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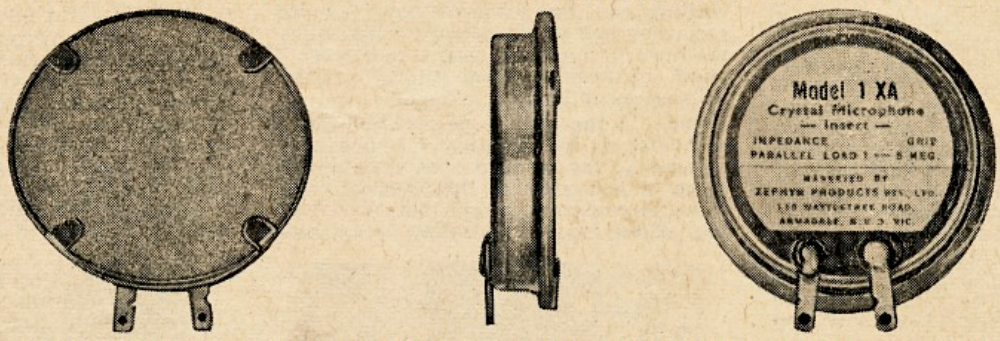


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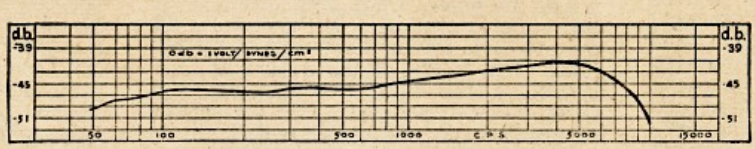


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Geiger counter tubes can be set up as a so-called Geiger counter telescope, the coincidence detector principle being utilised. One method of recording is the hourly photograph of an electrical counting system.

## GEOLOGY

Geology is another important branch of Antarctic research. In addition to investigations into the petrological and structural development of the Antarctic continent itself, search for mineral deposits has been the task of all expeditions. As in other fields, Australia's contribution is considerable and promises good results.

The continent as a whole has been found to contain valuable minerals. Summarising expeditions from all contributing nations, deposits of the following minerals have so far been discovered: coal, titanium, iron, copper, molybdenum, lead, antimony, zinc, and even traces of gold.

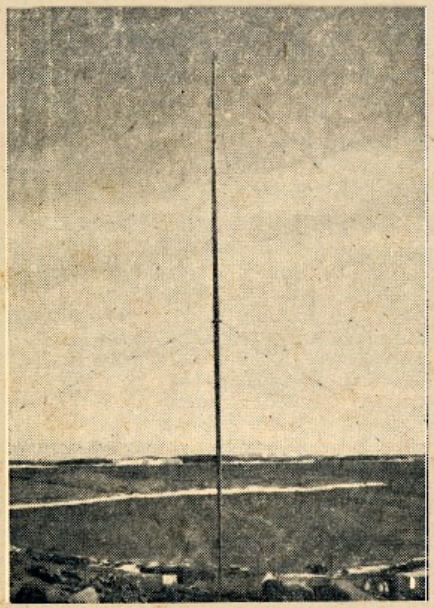
## METEOROLOGY

There is hardly any country beside Australia with more justification to setting up a meteorological research station in Antarctic regions. Australian weather forecasting has always been handicapped by the lack of observing stations between the virtual origin of cold air masses and this country. However, any reasonable and respectable weather prophecy is based on accurate and plentiful observations spread over as wide an area as possible. As is generally known, data thus obtained are sent by radio to the meteorological centre where they are evaluated and entered in a weather map. The meteorologist then determines forms and possible paths of cyclones and anti-cyclones depicted on the map, and subsequently issues the forecast. If a sufficient number of observations is not obtainable, the meteorologist's work is far more difficult and can even be deformed to rather unscientific prophecy.

Observations at ordinary meteorological stations include measurements of temperature, humidity, barometric pressure, wind velocity, and wind direction. All these components can be recorded continuously by simple recording instruments. Surface stations use normal thermometers, hygrometers, barometers, and thermographs, hygrographs, and barographs for recording. Mechanical or electro-mechanical wind recorders are utilised for investigations of the wind.

Miniature automatic stations—so-called radio sondes—are sent up into the atmosphere. A small transmitter continuously radiates data on the air layers penetrated by the sonde. A special recorder is connected to the radio sonde receiver at the ground station. There are a number of possible operating systems of radio sondes. The sonde type used in Australia measures three components and contains a single stage transmitter on 72 Mc. which is modulated by an audio oscillator. Both temperature and humidity act on different resistors in the audio oscillator circuit, thereby changing its frequency. The third component—the barometric pressure—causes a contact arm to slide over the series of contact strips which are alternatively connected to temperature or humidity resistor, respectively. Thus the frequency of changing from one of these components to the other is an indication of the barometric pressure. With this type of radio sonde, the v.h.f. carrier frequency remains unchanged. It is, however, subject to instability usually encountered with single stage transmitters in v.h.f.

During 1954, the upper-air research at Mawson was confined to ascents of pilot-balloons. The path of such a balloon is watched by personnel at the ground station, in general by visual means only. This year brought about the installation of complete radio sonde equipment. As far as can be foreseen, 1956 will see the operation of a more advanced type of radio sonde. Its operating frequency is around 400 Mc., which allows accurate direction-finding to be performed by a beam type of antenna. Consequently, this type of radio sonde can also be used for observing



**The Main Radio Mast at Mawson.**
A.N.A.R.E. Photo by Phillip Law.

the actual path of the radio sonde. Considering the fact that heights of 60,000 ft. are quite normal for radio sonde ascents, it can easily be realised that comprehensive studies of upper-air winds are possible. This can be of enormous importance to Antarctic research.

It is usually impossible to base climatic information of any place in the world on less than at least two years' records. However, some of the readings obtained at Mawson in 1954 are certainly interesting. The air temperature can be around 40 degrees (Fahrenheit) in summer; obviously, such relatively high values are only reached sporadically. And, of course, you cannot imagine a block of ice as large as Antarctica to remain lukewarm in winter. While previous expeditions have proved that temperatures down to —77 degrees can be expected, the 1954 Mawson observations show minimum values in the vicinity of —25 degrees.

As reported in the log of the 1954 team, winds can be rather unfriendly, in fact you do not call them winds anymore! Blizzards of up to 100 m.p.h. have been recorded. These, in addition to drifting snow, are the most unpleasant climatic conditions observed at Mawson.

One of the main objectives of world meteorological research is the establishment of reliable methods of long-range weather forecasting. It seems that satisfactory principles can only evolve from more detailed investigations of large-scale heat economy. This mainly comprises evaluations of the fundamental meteorological data mentioned above in addition to research in other related fields. The most important additional quantity is the solar energy received by the earth's surface. There is certainly some truth in the statement that "the good sun is the driving force behind the weather of our globe." And investigations of meteorological radiation are of particular interest in Antarctica, because very little has so far been done in this field.

In principle, such measurements are concerned with the two fundamental kinds of radiation: the incoming radiation produced by the sun, and the radiation component re-radiated by the earth's surface.

As the first quantity results in a relatively large amount of heat, its determination has been no problem to scientists for the last 100 years. However, the situation is entirely different with the latter quantity, which only comprises a relatively small amount of energy in a different spectral range. Thus its measurement is somewhat problematic. Until recently, only complex laboratory apparatus were capable of adequate readings. Some five years ago, however, this situation was remedied by the invention of a new principle enabling handy, robust and yet sensitive field instruments to be designed. This development was done in Australia. The 1954 expedition at Mawson utilised, with outstanding success, a special Antarctic type of this instrument. The evaluation of the data promises equally excellent results.

As is undoubtedly known to readers, scientific fields overlap each other, to some extent. Radiation research can also be regarded as Geophysics. Likewise could the following subject—Glaciology—have been dealt with under the heading Geophysics.

**Glaciology** is the Science of glaciers, glacial ice, glacial formation, etc. The 1954 team at Mawson carried out some glaciological research work. Such work normally consists of observing changes in glacial characteristics, and measuring temperatures at certain depths and other quantities. Changes are best observed by marking existing characteristics. Special types of electrical thermometers are employed for measurements within the ice.

## BIOLOGY

Seals, sea birds, penguins, and whales are well known members of Antarctic animal life. Investigations include studies of species, migrations, life cycles, population, and other characteristics of the animals mentioned. Vegetation is restricted to lichen, mosses, and algae. A detailed biological research programme will commence at Mawson in 1956. Work so far has been of a preliminary nature.

# Handy Index to "AR" Technical Articles—1945-55

Several months back we received from a VK4 member an index of technical articles covering "A.R." back to October, 1948. Until we checked it, we had every intention of publishing it. However, a close check showed that many alterations and additions would be needed to make it suitable for publication. The project was about to be abandoned when a member of "A.R." staff undertook the task of compiling an index covering all "A.R's" back to 1945.

As this staff member wishes to remain annonymous we think, in fairness to him, that the originator of the idea and those who checked the work should also remain unknown.—Ed.

**MISCELLANEOUS**



**POWER SUPPLIES**



**RECEIVING**



**Converters**



**RECORDING**

# PUSH-PULL POWER

## as only these

# "Miniwatt" Twin Tetrodes

## can deliver!

### MINIWATT TYPE 5894 (QQE06/40)

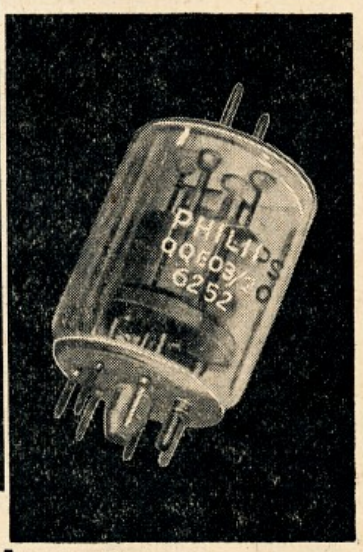
**A twin tetrode for wide band operation . . . widely accepted as standard for 420 Mc. service.**

New ICAS Ratings up to 250 Mc. Now allowed 750-volt plate voltage for CW operation and 600-volt plate modulated. Designed for R.F. Amplifier, Modulator, Frequency Tripler use. Considerably reduced capacitances provide higher resonant frequencies. Single cathode and screen-grid construction result in low RF degeneration, therefore low drive required. Self neutralized over entire band. 4" high overall x $1\frac{13}{16}$" diameter.


| | CCS | ICAS |
|---|---|---|
| 144 Mc. input | 120 | 150 watts |
| 220 Mc. input | 120 | 150 watts |
| 420 Mc. input | 100 | 120 watts |

### MINIWATT TYPE 6252 (QQE03/20)

**Lower Input and Output Capacitances than any other comparable twin tetrode.**




A natural for 420 Mc. use! Has been successfully operated as a frequency multiplier in the UHF TV band. Particularly suitable for low-drain mobile transmitters and multiplier chains. Only 3" high, with the same mechanical and electrical features that have placed the PHILIPS 5894 in the forefront as standard equipment at 400 Mc. or higher.

| | CCS | ICAS |
|---|---|---|
| 144 Mc. input | 90 | 112 watts |
| 220 Mc. input | 90 | 112 watts |
| 420 Mc. input | 75 | 90 watts |

A FULL RANGE OF TRANSMITTING TUBE MOUNTINGS AND ACCESSORIES ARE AVAILABLE

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PVI8-55

(Continued on Page 10)

# PAN PACIFIC SCOUT JAMBOREE, 1955-56

**At the request of the Organising Committee, the Federal Executive of the Wireless Institute of Australia will install and operate transmitting and receiving equipment at the Pan Pacific Scout Jamboree, to be held from the 28th December, 1955, to 9th January, 1956, at "Clifford Park," Victoria.**

"**Clifford Park**," a delightful stretch of country in the hills about 25 miles east of the city of Melbourne, has already been inspected by Federal Executive in order to locate the best position for the "Shack" and aerial systems.

The official Federal Station of the Wireless Institute of Australia, **VK3WIA**, will be on the air daily and nightly during the period of the Jamboree on the 14 Mc. band for International working, and the 7 Mc. and 3.5 Mc. bands for local and National contacts.

Directional Vee Beams on the highest hill in the camp area will span the globe in all directions; the choice of direction being chosen at the transmitter location further down the hill, at a point where Scouts from all parts of the Commonwealth and from twenty-one other Countries, together with the visiting public, will be able to make periodic visits to the "W.I.A. Ham Shack on the Hill." Fifteen thousand Scouts will be camped in the area for the Jamboree!

Approximately seven miles of roadway cover the camp area, which is broken into three main areas—Headquarters Area controlling the water supply, electric light system and the general administration of the Jamboree; one camp site catering for 10,000 Scouts; and a second smaller site catering for 5,000 Scouts.

A Special **Pan Pacific Scout Jamboree, 1955-56, Call Sign Card** in colour is being printed and will be forwarded to all those confirming a contact with VK3WIA at the Camp Area, and all VK Amateurs are asked to try to make an effort to be on the air during these twelve days and to publicise the fact abroad during DX Contacts that the Federal Station will be on the 14 Mc. band looking for overseas contacts. To assist in this, the Jamboree Organising Committee is advising Scout Organisations all over the world that VK3WIA will be on the air from the Camp Site and many Scouts will have the opportunity to say "Hello" to Listeners. A special team of c.w. operators will be rostered to maintain schedules with overseas countries when conditions do not hold good for phone contacts.

VK3WIA will be staffed and operated by Members of the Federal Executive and the Victorian Division, some of whom will be rostered to sleep at the site to guard the equipment and indirectly afford early and late contacts for those who might not be available during normal daylight hours. The installation of the equipment will be in the hands of three main working bodies: Aerial Systems, Audio Equipment and Receivers, and Transmitting Equipment.

With the co-operation of the Jamboree Organising Committee, the Members of the W.I.A. and all the others who have undertaken to prepare the operating site, supply electric light, erect aerial poles, etc., the success of this enterprise will be assured.

**VK3WIA will be looking out for you.**

73, D. Bowie, Federal Secretary.

— . . . —

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| Series Tuned ECO .... .... .... .... | Sep.'49 |
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| Simple VFO with Temperature Compensation .... .... .... | Dec.'52 |
| Single Tube VFO .... .... .... .... | Oct.'51 |
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# A Transmitter With Low Harmonic Output

**PART THREE**

**BY HANS RUCKERT,* VK2AOU**

### SPEECH AMPLIFIER AND MODULATOR

**Figure 4**: To get effective modulation it would be absolutely wrong to use high fidelity methods or components. We know that our DX partner will have to use not much more than 5 to 6 Kc. i.f. bandwidth in his receiver to pull us through the QRM or noise. Therefore we have to change the sound character of our voice.

If we use an upper modulation frequency of 3 to 3.5 Kc. we have to suppress frequencies below 300 c.p.s. as well to bring the audio spectrum to a balance and achieve high intelligibility. So use small coupling capacitors at the pre-amplifier. An a.f. low-pass filter is in any case recommended, whether we use a clipper or not, mainly to limit our modulation band and to give other Amateurs a chance to find a clear channel. The same method helps to concentrate our transmitter energy on the frequency range our partner will receive. That is why s.s.b. is even more efficient.

The crystal mike (any quality will be good enough for 300 to 3,000 c.p.s.) is followed by a high gain a.f. stage. A twin triode (6SN7 or similar) can be switched in as a clipper. The clipping level can be adjusted with the first volume control and 10 to 15 db. is usually used without distorting the modulation or changing the voice too much. In this case we are not at all interested whether or not the voice coming from this transmitter sounds like that of the operator. All we want is a much higher sound density of the speech than the natural voice has.

This way of lifting up the low sounds to 100% modulation must cause distortion of the already strong sounds which are clipped. The frequencies generated by this method again change the voice to some degree. Harmonics of the speech frequencies which would cause splatter, a wide unused transmitted band of frequencies, interference to other stations, and scattering of transmitted power are filtered out by a low-pass filter.

Formerly, complicated filters have been popular, but many designers found that they can introduce phase differences and distortion. Two sections are sufficient to reduce the modulation to 10% at 4 Kc. The clipper stage has no gain so this is a convenient place for a switch to by-pass the clipper and filter.

Using low a.f. gain in front of the clipper and high gain after the filter makes it possible not to clip, but still to use the low-pass a.f. filter. After a further high gain a.f. stage, there is a second volume control to set the modulation to a maximum of 95%, so preventing splatter when the clipper is used. It can be regarded as a matter of courtesy to use a clipper filter.

The driver stage is again the universal Telefunken pentode EF14 with plate and suppressor grid connected to get low impedance. A 6V6 as triode would be suitable as well. The driver transformer was a mains transformer with the 300v. winding now on the primary side and the 2 x 110v. primary now used as secondary. Two Telefunken pentodes, RL12P35 (identical to the 807, 30 watts plate dissipation) operate as class AB2 final modulator valves. When receiving, the grids of these valves get —70v. bias like the scope LB1 to prevent the sound of the receiver loudspeaker feeding the mike and the modulator plus, finally, the p.a. stage.

The modulation transformer is a 110v. mains transformer. After some calculations it was found that Amateur modulation transformers can be calculated like 50 c.p.s. mains transformers if we multiply the primary impedance by about 2.5 for class AB2 ampli-

(Continued on Page 24)

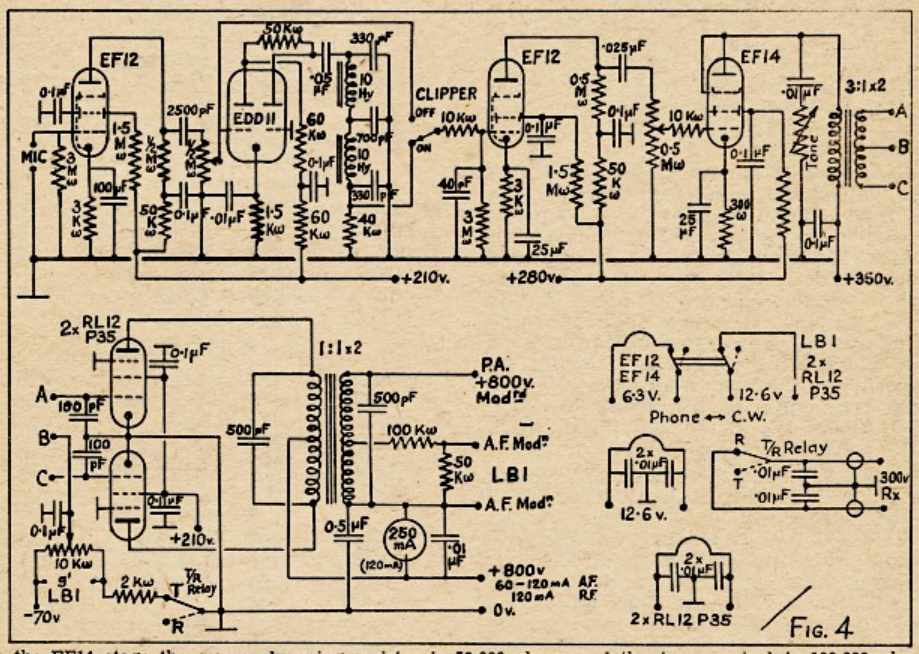


FIG. 4

In the EF14 stage the screen dropping resistor is 50,000 ohms, and the tone control is 100,000 ohms.



*25 Berrille Road, Beverly Hills, N.S.W.

# South Australia Wins Again

Apparently following suit from the previous winners, VK7 and VK6, who both won it twice in succession, S.A. has retained the honour for 1955. This was due to the magnificent score of VK5MS who ran even with VK3ATN at 1001 points, and the other five members who raised the average to 746. Logs entered increased by 21 to 87 and a clear lead was established over Western Australia.

This year a total of 431 logs was submitted; as from checking, 193 logs were not sent in and this can be contrasted with an Amateur population of 3,139. All territories except Antarctica participated and an award has been made for the first time in the Northern Territory to VK5TL. VK9 Division was well represented.

As the logs received showed that VK5 was well ahead, these logs were checked first; when checking was complete the amended scores still gave VK5 an unbeatable lead, so the other States were checked only to determine the award winners. These totalled 33. As these scores were very high in some cases and in one or two instances were very close, complete checking had to be undertaken. Much midnight oil was burnt and cups of tea drunk by 5CA, 5DO, 5FO, 5JD, 5KQ, 5OR, 5PM, 5QR, 5RR, 5XU and Norm Coltman.

Logs disallowed were few; principally for Rule 11, 16 logs; Rule 19, 2 logs, and a log submitted by a holder of the L.A.O.C.P. who operated on the h.f. bands using the station of a licensed Amateur submitting a log under his own Z call. As a test case, logs from two contestants in one State showed a contact with each other on the 144 Mc. band with a claim for a bonus of 25 points. This claim was disallowed on the basis that the rules stipulate that the Contest is for **Interstate** contacts—Rule 4.

Again the contestants did their best to make log-checking easy and the majority used the standard log sheets. One submitted contacts under the bands worked and gave a clear picture of the bands open at any time—3.5 Mc. to 21 Mc. Again, country members were well represented in the top six logs and it should be very gratifying to the Councils of the Division to record that fact.

The Committee desires me to record its appreciation of the efforts of the members of the VK5 Division who freely gave of their time in the same spirit that the Contest was played; also to those who gave their homes and hospitality to the stalwarts doing the checking, the indispensable XYLs and mothers; to Brian 5CA, for his able work as Secretary of the Division, and Jim 5FO, the unofficial manager of the team.

This Contest gains in strength and interest every year and I have to thank you for the spirit with which you have imbued it; that selflessness for which we honour those who died, that we might live to pursue our grand hobby.

*"By your acts of grace*
*So shall they live."*

G. M. BOWEN, Chairman Contest Com.

## POINTS CLAIMED AND ALLOWED

| State | Claimed | Allowed |
|---|---|---|
| VK2 | 4119 | 4057 |
| VK3 | 3915 | 3796 |
| VK4 | 2957 | 2857 |
| VK5 | 4638 | 4479 |
| VK6 | 4001 | 3920 |
| VK7 | 2892 | 2824 |
| VK9 | 1882 | 1805 |

## STATE SCORES

### South Australia

| | | | |
|---|---|---|---|
| VK5MS | 1001 | Average | 746.50 |
| 5EN | 854 | Licensees | 370 |
| 5RG | 806 | Logs | 87 |
| 5WO | 716 | | |
| 5JN | 576 | **Total Points** | **922.03** |
| 5GW | 526 | | |

### Western Australia

| | | | |
|---|---|---|---|
| VK6RU | 794 | Average | 654.00 |
| 6HK | 762 | Licensees | 189 |
| 6GU | 723 | Logs | 68 |
| 6FD | 625 | | |
| 6KJ | 519 | **Total Points** | **889.30** |
| 6DX | 501 | | |

### New South Wales

| | | | |
|---|---|---|---|
| VK2AHH | 791 | Average | 676.17 |
| 2AKV | 738 | Licensees | 1074 |
| 2JU | 716 | Logs | 69 |
| 2AMR | 709 | | |
| 2GW | 597 | **Total Points** | **719.61** |
| 2SR | 506 | | |

### Victoria

| | | | |
|---|---|---|---|
| VK3ATN | 1001 | Average | 632.67 |
| 3VF | 611 | Licensees | 1008 |
| 3ADW | 609 | Logs | 81 |
| 3ATR | 590 | | |
| 3HG | 573 | **Total Points** | **683.56** |
| 3BB | 412 | | |

### Tasmania

| | | | |
|---|---|---|---|
| VK7PM | 607 | Average | 473.50 |
| 7AI | 528 | Licensees | 126 |
| 7WN | 505 | Logs | 52 |
| 7YY | 451 | | |
| 7UW | 375 | **Total Points** | **668.91** |
| 7JP | 375 | | |

### Queensland

| | | | |
|---|---|---|---|
| VK4PQ | 861 | Average | 482.00 |
| 4CC | 652 | Licensees | 321 |
| 4OV | 523 | Logs | 46 |
| 4TN | 315 | | |
| 4HH | 296 | **Total Points** | **551.07** |
| 4RH | 245 | | |

### New Guinea

| | | | |
|---|---|---|---|
| VK9DB | 520 | Average | 300.83 |
| 9FN | 465 | Licensees | 43 |
| 9AU | 275 | Logs | 13 |
| 9HO | 200 | | |
| 9BW | 175 | **Total Points** | **391.78** |
| 9WK | 170 | | |

## AWARDS

### Open

| | | | |
|---|---|---|---|
| VK1ZM | 774 | VK5TL* | 89 |
| 2AHH | 791 | 6RU | 794 |
| 3ATN | 1001 | 7YY | 451 |
| 4CC | 652 | 9DB | 520 |
| 5RG | 806 | | |

* Northern Territory.

### Phone

| | | | |
|---|---|---|---|
| VK2AKV | 738 | VK6KJ | 519 |
| 3ATR | 590 | 7PM | 607 |
| 4PQ | 861 | 9FN | 465 |
| 5MS | 1001 | | |

### C.W.

| | | | |
|---|---|---|---|
| VK2QL | 412 | VK6GA | 281 |
| 3XB | 367 | 7CH | 339 |
| 4HH | 296 | 9OQ | 119 |
| 5MD | 207 | | |

### Listeners

| | | |
|---|---|---|
| N. G. Clarke | 629 | Points for each |
| J. A. Campbell | 312 | contact recorded. |
| F. H. Price | 553 | |

## OTHER LOGS

### NEW SOUTH WALES

| | | | | | |
|---|---|---|---|---|---|
| VK2AGH | 460 | VK2ZY | 154 | VK2IJ | 73 |
| 2PN | 362 | 2AHI | 148 | 2ANO | 70 |
| 2AHM | 345 | 2LG | 136 | 2APQ | 69 |
| 2AYS | 342 | 2ZF | 134 | 2PU | 64 |
| 2ARV | 336 | 2YC | 132 | 2ADL | 62 |
| 2CS | 333 | 2ABO | 125 | 2ACN | 58 |
| 2VW | 314 | 2BO | 125 | 2OY | 54 |
| 2AWN | 298 | 2ADE | 120 | 2AAI | 49 |
| 2EL | 296 | 2XT | 116 | 2AAB | 41 |
| 2AHP | 265 | 2DK | 106 | 2OM | 40 |
| 2AMB | 265 | 2AVI | 101 | 2ANA | 36 |
| 2AOU | 247 | 2YB | 89 | 2AKQ | 35 |
| 2AZN | 228 | 2ADT | 87 | 2AAW | 35 |
| 2ABE | 226 | 2AJL | 86 | 2AQR | 32 |
| 2OH | 213 | 2PV | 86 | 2AJZ | 30 |
| 2GT | 213 | 2JY | 84 | 2AHT | 30 |
| 2AAJ | 184 | 2AJO | 82 | 2SJ | 25 |
| 2GI | 180 | 2AVG | 81 | 2VN | 23 |
| 2AFA | 170 | 2XZ | 80 | 2ASW | 18 |
| 2YL | 167 | 2RF | 80 | 2AWX | 16 |
| 2AJQ | 157 | | | 2RU | 13 |

### VICTORIA

| | | | | | |
|---|---|---|---|---|---|
| VK3ALP | 405 | VK3AML | 125 | VK3HT | 43 |
| 3ALQ | 359 | 3ARV | 123 | 3PG | 40 |
| 3OM | 322 | 3JE | 119 | 3AMD | 40 |
| 3ASB | 320 | 3ND | 115 | 3ALD | 36 |
| 3QK | 305 | 3AXW | 112 | 3AAH | 32 |
| 3APS | 275 | 3ATK | 107 | 3RN | 31 |
| 3HE | 248 | 3XH | 105 | 3OH | 31 |
| 3BL | 247 | 3JA | 105 | 3YS | 30 |
| 3KR | 245 | 3YQ | 104 | 3AGP | 30 |
| 3AJK | 240 | 3LV | 102 | 3TE | 30 |
| 3ABH | 238 | 3ADU | 92 | 3IE | 30 |
| 3LA | 215 | 3AAP | 90 | 3OJ | 29 |
| 3TG | 193 | 3XU | 87 | 3ARL | 29 |
| 3ADL | 193 | 3ALE | 79 | 3AGD | 29 |
| 3ZA | 182 | 3ACN | 72 | 3HK | 28 |
| 3AUG | 176 | 3WQ | 67 | 3SS | 27 |
| 3AFJ | 168 | 3II | 62 | 3AFP | 26 |
| 3DU | 155 | 3FO | 60 | 3AHH | 25 |
| 3ZV | 149 | 3AHR | 58 | 3AWF | 22 |
| 3ANO | 146 | 3AWS | 56 | 3ZU | 19 |
| 3NN | 140 | 3IB | 56 | 3DY | 16 |
| 3PR | 133 | 3YH | 51 | 3AEP | 15 |
| 3AFF | 133 | 3AKW | 47 | 3ZM | 13 |
| 3AJP | 132 | 3RJ | 43 | 3JO | 12 |
| 3LR | 131 | | | 3AID | 12 |

### QUEENSLAND

| | | | | | |
|---|---|---|---|---|---|
| VK4JF | 241 | VK4ZP | 80 | VK4EA | 27 |
| 4FC | 181 | 4HD | 79 | 4BG | 24 |
| 4JE | 160 | 4CK | 66 | 4JO | 24 |
| 4JD | 157 | 4JR | 57 | 4PR | 20 |
| 4CY | 144 | 4OB | 41 | 4YS | 20 |
| 4NG | 131 | 4VS | 39 | 4XL | 19 |
| 4OX | 119 | 4ZZ | 39 | 4CN | 18 |
| 4SF | 114 | 4KK | 38 | 4FP | 17 |
| 4XP | 111 | 4RJ | 38 | 4RZ | 17 |
| 4MA | 102 | 4HZ | 34 | 4XS | 12 |
| 4GG | 99 | 4BW | 32 | 4KS | 10 |
| 4SE | 90 | 4EC | 29 | 4WI | 9 |
| 4HN | 82 | 4RL | 29 | 4PD | 7 |
| | | 4AQ | 27 | | |

### SOUTH AUSTRALIA

| | | | | | |
|---|---|---|---|---|---|
| VK5AP | 505 | VK5BO | 102 | VK5KE | 37 |
| 5FF | 437 | 5KU | 91 | 5XA | 37 |
| 5FT | 413 | 5KY | 88 | 5TD | 36 |
| 5HI | 381 | 5FQ | 88 | 5OD | 35 |
| 5FM | 375 | 5OR | 87 | 5DF | 35 |
| 5LD | 361 | 5EF | 79 | 5RR | 31 |
| 5JT | 327 | 5FJ | 73 | 5PS | 30 |
| 5FY | 289 | 5ZY | 71 | 5TM | 28 |
| 5WC | 283 | 5PU | 67 | 5HW | 28 |
| 5AV | 261 | 5JO | 66 | 5MA | 26 |
| 5LQ | 253 | 5CH | 64 | 5CY | 26 |
| 5OK | 221 | 5CJ | 64 | 5DH | 24 |
| 5ZB | 201 | 5LE | 63 | 5LL | 22 |
| 5BG | 201 | 5RI | 58 | 5JD | 22 |
| 5MZ | 183 | 5RX | 57 | 5LN | 22 |
| 5KQ | 179 | 5DK | 56 | 5EG | 20 |
| 5PM | 170 | 5QR | 54 | 5XU | 19 |
| 5XN | 162 | 5BY | 53 | 5OC | 16 |
| 5ON | 136 | 5JC | 52 | 5GL | 16 |
| 5JJ | 135 | 5FD | 52 | 5UZ | 15 |
| 5TJ | 132 | 5CO | 44 | 5WM | 15 |
| 5BZ | 131 | 5FO | 42 | 5KX | 13 |
| 5AX | 130 | 5CA | 41 | 5TW | 12 |
| 5CE | 125 | 5HM | 40 | 5VO | 12 |
| 5BH | 122 | 5JG | 40 | 5EC | 12 |
| 5LB | 105 | 5UF | 39 | 5WI | 11 |
| | | 5RK | 39 | | |

(Continued on Page 14)

I heard the bells on Christmas Day,
Their old familiar carols play,
And wild and sweet
The words repeat,
Of peace on earth,
Goodwill to men.

*Longfellow*

# *A Merry Christmas and A Happy and Prosperous New Year*

*from*

**AMALGAMATED WIRELESS VALVE COMPANY PTY. LTD.**

# NATIONAL FIELD DAY, 1956

## RULES

1. The National Field Day Contest of the Wireless Institute of Australia will be held on **Sunday, 12th February, 1956,** and will be of 12 hours' duration, commencing at 0900 hours E.A.S.T. and will continue until 2100 hours E.A.S.T.

2. The Contest is limited to Portable Stations operating within the Commonwealth and its Mandated Territories on a power not exceeding 25 watts input to the final stage with the aerial connected, with a special section for fixed stations working to portable stations.

3. A portable station for the purpose of the Contest is defined as one whose power is not derived from either private or public mains, shall not be located closer than five miles airline from the home of the operator(s) and shall not be situated in any occupied dwelling or building.

4. No apparatus is to be set up or erected on the site of the portable station earlier than 24 hours prior to the commencement of the Contest. A station may be moved from one site within a State to another within the same State during the Contest.

5. More than one operator may be used in the operation of the portable station, provided that all operators are licensed Amateurs.

6. Operation may be on any of the recognised Amateur bands and more than one transmitter may be used, providing that only one transmitter is used at any one time.

7. When calling, c.w. stations will use the call "CQ NFD" and phone stations will use the call "CQ National Field Day" to indicate that they are portable stations. Attention is directed to the requirements for portable operation as defined in the P.M.G. Handbook for the Guidance of Amateur Operators.

8. **Sections**: The Contest is divided into four sections, namely,

(a) Open
(b) C.W.
(c) Phone
(d) Fixed stations.

The open section will consist of phone and c.w. Portable station participants may enter each of sections (a), (b), and (c), provided a separate log is entered in each case.

9. Logs must be forwarded to the Contest Committee, **through the Divisional Council** for membership checking in time to reach Box 1234K, G.P.O., Adelaide, not later than Saturday, 25th February, 1956.

10. Logs must be filled in in the following order: Date, Time (E.A.S.T.), Band, Emission, Power Input to the final stage with the aerial connected, Call Sign of Station Contacted, RST number sent, RST number received, location of station contacted, points claimed. The log must be headed with the title of the Contest, section entered, call sign of the competitor, location of the station. At the conclusion of the log a summary of the contacts must be shown, together with a description of the equipment used including h.t. voltage to the final stage, tube(s) in p.a. stage, antenna used, and call signs of all operators.

11. The completed log must be signed by each of the operators with a statement that the P.M.G. regulations and the rules of the Contest have been observed.

12. The decisions of the Federal Contest Committee will be final in all matters concerning the Contest.

13. Failure to completely observe the conditions of Rule 10 will lead to automatic disqualification of a competitor.

14. **Scoring**: For the purpose of the Field Day the following constitute VK districts: VK2, VK3, VK4, VK5 (South Australia), VK5 (Northern Territory), VK6, VK7, VK9.

15. Serial numbers must be exchanged during the Contest. Failure to record current serial numbers will mean loss of all points for that contact. Serial numbers will be as follows: The first three figures will be the RST report in the c.w. section, followed by the serial number of the contact. Serial numbers may commence with any number between 001 and 100 for the first contact, increasing by one for each successive contact. In the phone section, the first two figures will be the RS report as in the c.w. section, followed by the three serial numbers. In addition the QTH must be given in all cases.

16. Points will be awarded as follows:

**Portable Stations—**

(a) For contacts with a fixed station within the Commonwealth (Rule 14) including the competitor's own State .... .... .... .... .... **1 point.**
(b) For contacts with other portable stations within the same State .... .... .... .... .... .... .... .... **2 points.**
(c) For contacts with stations in Asia, Oceania, North America, **3 points.**
(d) For contacts with stations in other countries other than (a), (b), and (c) .... .... .... .... .... **5 points.**
(e) For contacts with other portable stations outside the competitor's own State .... .... .... .... **10 points.**

**Fixed Stations—**

(f) For contacts with portable stations in the Contest within the same State .... .... .... .... **2 points.**
(g) For contacts with portable stations in the Contest outside the State .... .... .... .... .... .... .... **5 points.**

17. **Awards**: An attractive certificate will be forwarded to the outright winners in each section, namely, Open, Phone, and C.W. Certificates will also be awarded to the winners of each section in each State and to the Fixed Station in each State with the greatest number of points gained in contacting portable stations in the Contest. Further certificates may be awarded at the discretion of the Federal Contest Committee. The outright winners are not eligible for State awards.

18. Certificates will be awarded to each operator of the winning stations provided each operator has contacted at least 25% of the stations contacted.

## CONTEST RESULTS

(Continued from Page 12)

**WESTERN AUSTRALIA**

| | | | | | |
|---|---|---|---|---|---|
| VK6NF | 353 | VK6WG | 31 | VK6UF | 19 |
| 6EJ | 345 | 6XG | 31 | 6LM | 19 |
| 6MG | 247 | 6WS | 30 | 6LJ | 18 |
| 6GY | 184 | 6ZI | 30 | 6JK | 18 |
| 6TK | 181 | 6EC | 29 | 6RS | 18 |
| 6VK | 107 | 6BO | 28 | 6TB | 17 |
| 6KO | 105 | 6TR | 27 | 6EH | 16 |
| 6BE | 103 | 6WT | 27 | 6HC | 16 |
| 6EZ | 89 | 6SR | 26 | 6JS | 16 |
| 6JG | 87 | 6WR | 26 | 6AW | 15 |
| 6LU | 87 | 6BS | 26 | 6TX | 15 |
| 6RW | 84 | 6MB | 26 | 6GM | 15 |
| 6FL | 82 | 6WH | 25 | 6OR | 15 |
| 6CP | 68 | 6WW | 24 | 6KW | 14 |
| 6LL | 55 | 6FB | 24 | 6AS | 12 |
| 6WZ | 52 | 6SJ | 23 | 6FT | 12 |
| 6HR | 46 | 6EW | 22 | 6WJ | 11 |
| 6BC | 37 | 6KU | 22 | 6GB | 11 |
| 6TY | 35 | 6RK | 22 | 6KX | 11 |
| 6ZZ | 32 | 6VM | 21 | 6JA | 9 |
| | | 6WI | 19 | | |

**TASMANIA**

| | | | | | |
|---|---|---|---|---|---|
| VK7LJ | 372 | VK7WA | 75 | VK7LS | 30 |
| 7JD | 326 | 7BJ | 75 | 7NC | 26 |
| 7RN | 304 | 7LZ | 61 | 7LE | 23 |
| 7JO | 293 | 7AL | 61 | 7XW | 22 |
| 7RX | 287 | 7KM | 47 | 7ML | 22 |
| 7BR | 269 | 7XD | 46 | 7SR | 17 |
| 7OM | 220 | 7LL | 45 | 7FM | 14 |
| 7KA | 217 | 7MY | 44 | 7DS | 14 |
| 7SF | 214 | 7AG | 43 | 7RK | 14 |
| 7DR | 211 | 7EJ | 42 | 7DJ | 14 |
| 7IJ | 198 | 7AC | 38 | 7WI | 13 |
| 7DW | 192 | 7HB | 38 | 7FJ | 13 |
| 7GM | 181 | 7XL | 37 | 7AB | 12 |
| 7CK | 122 | 7KX | 35 | 7WB | 10 |
| 7RY | 88 | 7AX | 34 | 7CT | 8 |

**NEW GUINEA**

| | | | | | |
|---|---|---|---|---|---|
| VK9VP | 124 | VK9RM | 94 | VK9RC | 78 |
| 9GB | 95 | 9SP | 94 | 9WP | 26 |

**LISTENERS' LOGS**

| | | | |
|---|---|---|---|
| K. C. Bicknell | 235 | D. Rankin | 42 |
| E. W. Trebilcock | 124 | F. J. Easler | 42 |
| J. P. Hayden | 120 | R. Dunstan | 23 |
| R. A. de Balfour | 64 | | |

— . . . —

## TELEVISION STATION OPERATORS' CERTIFICATE OF PROFICIENCY

Examinations for the T.S.O.C.P. will be conducted in Melbourne and Sydney on the second Tuesday in March, June, September, and December, and oral and practical examinations on the succeeding day or days. The examination is in three sections:—

Section A—Fundamental Theory, 2 hours.

Section B—Transmission Reception and Studio Techniques, 3 hours.

Section C—Practical and Oral Test.

Applicants for the examination must be 18 years of age and hold a Broadcast Station Operators' Certificate of Proficiency, or be otherwise qualified to the satisfaction of the Board.

Copies of a syllabus of the examination may be obtained from the office of the Australian Broadcasting Control Board in Melbourne or from the Superintendent, Radio Branch, in each Capital City.

The first examination will be held on 13th December, 1955, for which applications were due on 15th of November. Notification of this examination was received too late for inclusion in the November issue.

# DX ACTIVITY BY VK3AHH†

## PROPAGATION REPORT

**3.5 Mc.**: During the month of October openings to the **American continents** (0900-1200z) were reliable, while **European** break-throughs displayed more sporadic behaviour (1900-2030z).

**7 Mc.**: Conditions on this band did not show any unusual features. Depending upon noise and interference level, these were the periods of band openings: **Europe**: 0600-0900z, long path; 1900-2100z, short path. **America** and **Far East**: 0600-1400z.

**14 Mc.**: Increased sunspot activity tremendously improved band conditions. They appeared to show peaks during the following periods: 0400-1300z for **Europe** and **South America**; 0800-1400z for **South East Asia**; 0400-0800z **Africa**.

**21 Mc.**: Following the general trend, this band provided excellent conditions to all continents. However, openings did not appear to be as stable as they could have been. **Europe** was workable between 830z and 1300z. The **American continents** occupied 2100-0800z. Break-throughs to **Africa** were observed between 0400 and 120zz.

**27/28 Mc.**: As was to be expected, excellent conditions appeared during the month. Openings being somewhat more reliable in the northern part of our continent, break-throughs were observed in all States, particularly to **North** and **South America**. **European** and **African** contacts have been reported from Queensland.

## NEWS AND NOTES

Number and quality of this month's reports leave no doubt that conditions have improved on all higher bands. Admittedly, the DX is a bit harder on 3.5 and 7 Mc.—but there is still something like a challenge connected with it. Do not forget 7 Mc. and, especially, 3.5 Mc.!

Did you notice the new form of Prediction charts? Oh yes, the old ones were easier to follow, but this is the only way they can be printed now. Due to the same technicality, the October charts could not be obtained in time. Thank you for appreciating the difficulties!

Up-to-date news on activities in **Netherlands West Indies** comes from Don **PJ2AJ**: PJ2AR and his XYL PJ2AU have made QRT in PJ-land and are now in Venezuela. Any QSL claims will be followed up by 2AJ. PJ2AE intends being back on the air soon. PJ2AV (ex-PA0FD) is active and QSLs via bureau. Due to illegal operation of a certain PJ2MB during the first DXpedition to St. Martin (call sign PJ2MA) in March, '55, prospects of future DXpeditions to this rare place appear to be doubtful.

**ZD2DCP** is looking for VK contacts on 14050 Kc. around 2130z (from 5BY).

It is understood that ZL2GX and a ZL1 will go to **Kermadec Islands** in January, 1956 (from NCDXC).

This is the present activity of **ST2's**: ST2AC c.w. and phone, ST2AR c.w., ST2DB mostly phone, and ST2NG c.w. The 14 and 21 Mc. bands are preferred (from 2AMB).

**HL2AA, Seoul, South Korea,** was recently licensed and is allowed to use 1.8, 7, 14, 21, 28 and 144 Mc. bands (from NCDXC).

The 3.5 Mc. band provided some good DX during October: **YN1AA, YJ1DL** (3504 Kc.) and **CE4AD** (3514 Kc.) were reported to be active (from 3ZP, ZL1CI).

And here is the echo from "over there": The following VK stations have recently been heard on 21 Mc. phone, as reported by **Jim Hunt**, presently in England: VKs 2AKV, 2AVW, 3JA, 4EL, 4HR, 6RU and 9DB (from 3ZBO).

Sorry to hear that one of our most consistent and reliable contributors, Ray VK5RK, had to spend some time in hospital. Hope you are home again and making speedy recovery!

### QTHs OF INTEREST

(from NCDXC and VKs 2AMB, 3JA, 3AHM, and Rod de Balfour)

VU2CW—J. N. Suha, All India Radio, Jaipur, Rajasthan, India.
VS4BA—C/o. G.P.O., Kuching, Sarawak.
XZ2SS—C/o. Electricity Supply Board, Rangoon, Burma.
5A1TL—S/Sgt. Eugene Timberger. AF12309138, 580th AR SQD., Box 302, APO231, New York, N.Y., U.S.A.
AC5PN—Via P.O., Kalimpong, India.
ET3AH—P.O. Box 499, Addis Ababa.
FD4BD—Pierre Dubourdieu, P.O. Box 185, Lome, Togo.
TF2WAM—APO 81, New York, N.Y., U.S.A.
ZS8L—Box 4, Maseru, Basutoland.

## ACTIVITIES

**3.5 Mc.**: Frank **2QL** worked a series of Ws*. Bob **3ZP** reports YJ1DL, YN1AA and CE4AD. **Dave Jenkin** also heard CE4AD and W. Here at **3AHH** the month's log is as follows: A series of Ws*, VE1ZZ*, SM5AQW, CE4AD, YJ1DL, DU7SV.

**7 Mc.**: Laurie **2AMB** heads the list with KP4CC*, VE3KE*, VE3PK*, VE3ABP*, VE2LI*, VE4RO*, ZS7J* (1630z), FK8AO*, CE3AD*, and DL1JW, ZS5OX, ZS5FY, ST2AC, EA4BH, I1CZ, I1LI, VS1BJ, OZ7B, VP7JB. Albert **3PG** worked ZC4IP*. Fred **3YS** adds DU7SV. Eric **BERS-195** heard VE1QN, XE3AH, DL6MK, SM5AQW, G2LU, I1NT, I1EC. **Dave Jenkin**: DL3VN.

**14 Mc. c.w.**: **2QL**: CX*, VQ8CB*, BV1US*, ZS9O* and VP8BD, VP8BL, VP2LH, VQ8AD, FB8BF. **2AMB**: CE3RE*, KP4ZW* and Europeans, XW8AB, FB8XX, VS6, VU, YV. Allan **3HL**: YV5BJ*, Europeans*, FA8ZZ*, VP6KL*, VP9BM*, TI2PZ*, XW8AB*. Jack **3JA**: FA3OA*, KZ5GO*, Europeans*, KP4TF*, PY1ADA*, ZD6BX*, CE4AD*, FI8AC*, TI2PZ*, CE3RE*, EI8S*, PY7LJ*, PY4AO*, PY2AFS*, PY1ANR*, PY2NX*, CE3DZ*, TF5SV*, VP8BL*, LU1CA*, LU8MAH*, 4S7MR*, LU5ABL*, LU3CW*, CE3QJ*, KT1EXO*, CR9AI*, LU1DCQ*. Ken **3KR**: Europeans*, XE1AX*, KZ5NB*, LU1SE*, 5A4TX*, ZS5ND*, LU6AJ*, LU8AAY*, 4X4FQ*, KP4YX*, TI2PZ*, PY1RW*, YJ1DL*, KP4DP*, VP7NI*, JA*. Albert **3PG**: Europeans*, 4S7TM*, FA3OA*, CE3RE*, TI2BC*, TI2PZ*, KV4BB*, KL7BFW*, PY2AFS*, PY1ADA*, YV5BZ*, ZC4IP*, KG1KK*, XE1XB*, PJ2AN*, TF5TP*, XW8AB*, VS4ABA*. Lee **3XO**: JA*, Europeans*, CS3AC*, 3A2BH*, ZB2I*, PX1EX*, KZ*, PY*, CE*, TI*, KV*, KP4*, CO*, YV*, MP4*, ZC4*, HH*, XW8AB*, OA*, VU*, VQ6LQ*. **3YS**: XW8AB*, VK1EM*, VS4BA*, TI2PZ*, PJ2AJ*, and CE3RE, 0S4AX, VQ8CB, HZ1AB, AC5PN. Allan **3AHM**: KV4AA*, TI2PZ*, YV5AE*, CE3RE*, YV5BZ*, ZC4IP*, VP6KL*, VP9BM*, 9S4AX*, FA8DA*, LU5ABL*, VS4BA*, Europeans*, CR9AI*, XW8AB*, 4S7KH*, 4S7GE*, DU*, VS6*. Bob **4RW**: YN1PM*, XW8AB*, 4S7TM*, Europeans*, VQ6LQ*, VQ2W*. Syd. **4SE**: DU7SV*, KL7*, YV5BJ*, JAs*, XE1MJ*, VE7*, Europeans*, XW8AB*, HH2FL*, ZD6BX*, CO8DL*, ZS6IX*, VU2*, 4S7*, VP9BM*, ZC5CT*, VQ4SS*, ZE6JU*, TI2PZ*, PY2AFS*, VS6*, TF5SV*, ET3AH*, LU*, CR7AR*, KZ5IF*, ZC4FF*, VQ6QL*, and BV1US, HC, ZM9R, 3V8AB, CN8BP, ZC4VP, FA8IM. Doug **5BY**: PX1EX*, ZS8L*, 3A2BH*. John **5HI**: ZB1CH*, HZ1AB*, YJ1DL*. Austin **5WO**: 4X4CK*, Europeans*, KP4ZV*, KV4AA*, VQ8AG*, LU8MAH*, CX2AM*, PY4AO*, PY2AJK*, VS4BA*, KV4BB*, KZ5GH*, CE3RE*. Tim **3ZBO**: LU4DMG, KV4AA, CE7AA, Europeans. **BERS195**: BV1US, CR9AI, CO2OE, CE4AD, DU6CO, DU1CV, DU1OR, DU7SV, DU3DD, FI8HI, HH2FL, KC6CG, KL7PI, KV4BB, KV4AA, LU4DMG, LU1SE, LU8MAH, VU, VQ6LQ, XW8AB, XZ2OM, VS4BA, ZS6IX, 4S7KH. **Dave Jenkin**: Europeans, DU1AQ, DU3DO, KV4BB, ZC5CT, KV4BK, CE1DS, CE3RE, BV1US, VP9BM, 4S7KH, 4S7MR, VU2HF (0040z), ZC4IP, XW8AB.

**14 Mc. phone**: **2AMB**: OA2A*. Neville **2APL**: PY2AHS*. **3JA**: CX2AX*, CE3CZ*, CE3QJ*, CE3PV*, Europeans*, VK1RA*, YV5BK*, TI2RMA*, CX5AF*. **3KR**: 3V8AS*, TG9AD*, ZB1H*, Europeans. **3PG**: HC1ES*, **GC6FQ***. Stan **3TE**: CN8GD*, CO8DL*, Europeans*, EA9BC*, GD3IBQ*, HK3CZ*, KV4BB*, MP4BBF*, ST2DB*, 3A2BE*, 3A2BF*, 4X4FQ*. Ken **3WM**: HK3PC*, Europeans*, LU7DJU*, LU1FAE*, VU*, HP3FL*, EA9AZ*, PY2AQH*, CX3NJ*, MP4BBF*, OD5DA*, CE2DB*. Harold **3AHC**: 4X4FQ*, 4X4AH*, Europeans*, TG9AD*, YV5EU*, YV5BQ*, YV5AO*, YV5AB*, YV5FK*, KP4T*, KP4WAE*, CO8LS*, HK4AM*, HK3FV*, HK3PC*, HK3FT*, KV4BB*, OA6F*, OA6M*, OA4AW*, OA2A*, OA1E*, GD3ENK*, GD3GMH*, PY9AE*, PY4LP*, OD5AD*, OD5AT*, KZ5MB*, XE1DU*, CE2DB*, XZ2OM*, XZ2SS*, CX2AX*, LU8MU*, LU4DMG*, LU7FBI*, 4S7GE*, 4S7WM*, FA3GZ*, VK1AWI*, ZP5CF*, HI6EC*, VP5KJ*, TI2RMA*, ZB1EB*, MP4BBF*, HC2BH*, KZ5EA*, CO8BF*. **4RW**: ZS6AJH*, ZS6RT*. **5HI**: TI7HM*, LU5MZ*, Europeans*, HK4DP*, HH2JK*, YV5AB*, YV5EC*, OA4AW*, HK5JV*, KP4QA*, XE1DU*, LU7MAJ*, VQ6LQ*, HC1ES*, ZM6AT*, XZ2OM*, KZ5KA*, GC6FQ*. **5WO**: VQ6LQ*, LU1FAE*, KV4BI*, YV5AB*, Europeans, VQ4FK*, LU4DMG*, LU5AR*, CX2AX*, CE3IT*, ZS6AJH*, PY2CK*, ZP5CF*, ZP5CG*, TG9AD*, ET2US*, YI2AM*, PY2AHS*, CX2CO*, LU7MAJ*, OA6M*, CE3PV*, HP4BBF*, ZS6XL*, 4S7SW*, KP4QA*, ZB1EB*, HK4DP*, OA3L*, 3V8AS*, XE2NT*. David **3ZAT**: Europeans, DU, PY, KV4, XZ, LU, OA, CE, CX, CS3AC, ZC5, KL7, TI, HK, ZS, YV. **BERS195**: OA2A. **Dave Jenkin**: KZ5KA. **John McKendrick**: CS3AC, Europeans, HH2JK, SU1AS, 4X4, 5A2, 5A4, KP4, VP1, 4S7, CN8. **Rod de Balfour**: 5A1, PY1, PY2, PY4, Europeans, CX2, TG9, LU6, LU7, HK3, CO2, ZP5, OA2, VU, ET2US (1300z), DU6, KP6.

**21 Mc.**: Fred **2ID**: G*, OH*, Is*, SM*, GD*. **2QL**: PY1ADA*, OA4C*, VQ4SS*. **2APL**: G*. Bert **3HE**: F*, G*, ZS6SA*, ZS4FP*, HC1FS*, VS2*, KZ5WS*, PY2AJS*, HK4BS*, LA5YE*, SM*, and HK, KV4BB, OH, VP8BD, TI2DLM, YQ3DQ, CP5EK, ZS4FC, GW. **3HL**: JAs*. **3JA**: DL*, JA*, PY1ADA*, G*, VQ4SS*, VS6-CO*, GM*, SM*, GI*, ON*, ZS2AT*, I1*, F*, DU6IV*, PA0*, OZ7G*, OZ3FL*, OH*, CP5EK*, ZS3AB*, ZS5V*, ZS5OA*, KL7ZG*, LA*, VP6-FR*, GD3GMH*, OH5NQ*, HC1ES*, CE3MJ*, DU7SV*, KW6BB*. Bill **3JE**: VP8BD*, ZSs*, ZC4*, VS6*. Percy **3PA**: VP8BD*, CX2CO*, PY2CK*, PY1MK*, OA4C*, OA4ED*, OA4BN*, OA4CL*, OA4AE*, CP5EK*, YV5AB*, KV4BB*, HK4DF*, HC1ES*, HC1FS*, KZ5PP*, KZ5MB*, KZ5HA*, ZS4FP*, ZS5CU*, ZS5OA*, GD3GMH*, G*, DL3RM*, DU7SV*, JAs*, KC6CG*, VS2BD*, VS6*, PY1ADA*, LU3EX*, LU8TA*, SM*, VQ4-SS*, ZS4RX*, HB9*, PA0*, OH*, OE*, VU* and SV0WT, GW. **3PG**: SM*, DL/DJ*, GM*, GW*, LA*, JA*, HB9*, OH*, PJ2AN*, PY1ADA*, DU7SV*, KC6CG*, YU*, CP5EK*, PY2CK*, GD3GMH*, HC1ES*, KR6*. **3WM**: VS2*, HC1FS*, YV5AB*, ZS6SA*, OH*, HC1KV*, JA*, OZ*, VP8BD*, ZS6ADR*, OA4BU*. **3WQ**: HK5ER, PY1AQT, PY1BCJ, G, DL, GM, CP1AT, LU9-HG. **3YS**: HB9, JA. Frank **3ZI**: GD3GMH*, DU7SV*, VP8BD*. Frank **3ZU**: ZE2JK, JA, VS6, ZS5MP, DU7SV, LA. Neville **3ACN**: Europeans*. Len **3ALD**: Europeans, VS1*. **4RW**: CP5EK*. VS6*, VU*, HB9*, DL*, G*, KN6*, HC1-KV*, DU7SV*, PA0*. **4SE**: CR9AH*, DL*, G*, SM*, DU*, VQ4SS*, OE*, HB9*, JA*, VS6*, GM*, ON*, 9S4BN*, F*, GW*, CP5EK*, KC6-CG*. **5WO**: PY2AK*, TI2DLM*, HC1FS*, CP5-EK*, KZ5WZ*, KC6CG*, KV4BB*, PY2CK*, ZS5MP*, ZS5PG*, ZS6SA*, VS2*, DU7SV*, JA*, ZS2CY*, ZS3G*, G*, VU*, SM*, ON*, LA*, DL*. **Rod de Balfour**: JA, DU7, KV4, HC1, PY1, CP5, KL7, KC6. **3AHH**: KC6CG*, CP5EK*, CE6AB*, DL*, G*, GD3UB*, JA*, VS6*, WN7AOZ*, KZ5WZ*.

**27/28 Mc.**: Norm **2AFE**: DU*, W6*. Angus **3IY**: KH6*, W6*. **3JA**: Ws*. **3PA**: W6* and HC1FS, VE. **3PG**: a series of Ws* and KH6*. **3WM**: W6*. **3YS**: W8*. Max **4HD**: a series of Ws*, VE*, KH6*, TG9JW*, CO2BL*, HC1FS*, HC1ES*, LU1OD*, KR6*, KC6*, CR9AH*, 4S7*, VQ4EU*, I1II*, OH2OV*, OH5NQ*, DL3RM*, VS6CZ*, G3BXI*, G2CBA*, G2YZ*, I1YI*, G3IIW*. **5WO**: W6s*. **John McKendrick**: W3, W5, W6, W7. **3AHH**: a series of Ws*.

Rare QSLs were received by: **2AMB**: VK1DY, KV4BK. **3JA**: ZS3AB, CS3AC. **5HI**: EA9AZ, FB8XX, 9S4BE, MP4BBL, TF5SV, ZB1AJX. **5WO**: GD3IBQ, MP4BBS, VQ4FG, OA6M. **BERS195**: HR1JZ, VQ4EG, YV5DE, 5A2CJ. **Rod de Balfour**: KT1WX, HR3HH.

Thanks are extended to all contributors.

Christmas Greetings to fellow Christians everywhere!

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## AUTO TRANSFORMER

VK3QG requests anybody who obtained an Auto Transformer, 21 amps. S.Ph., from recent hand-out to contact him. His address is C. P. Smith, 1333a Gregory Street, Ballarat.

† Hans J. Albrecht, 10 Belgravia Ave., Box Hill North, E.12, Vic.
* Call signs and prefixes worked.
z — zero time—G.M.T.

# "HAM" RADIO SUPPLIERS

(KEN MILLBOURN, PROP.)

## BARGAINS GALORE. COMPARE THESE PRICES

**PROMPT ATTENTION TO YOUR NEEDS.** **NEVER CLOSED BETWEEN 9 A.M. AND 5.30 P.M.**

**Command Transmitters:** Freq.: 4-5.3 Mc., 5.3-7 Mc., or 7-9 Mc. Complete with valves and crystal .... £7/10/-

**AT5 Transmitters,** covers low freq. bands, also bandswitched 3 bands 2-20 Mc. using 6V6 M.O./xtal osc., 807 buffer/dbler., pair 807s in parallel; 6V6 grid mod. All stages metered with 0-5 Ma. meter (250 Ma. f.s.d.); less Valves .... £3

**AT5-AR8 Junction Box and Cables** .... £2/10/-

**AR8 Cables** .... 7/6 each

**AT5-AR8 Aerial Coupling Units,** contain one 0-5 Ma. meter ext. thermo couple, single gang variable condenser, keying relay, aerial change-over d.p.d.t 12v. 48 ohm relay, etc. Ideal for wrecking. A Bargain at .... £1/10/-

**English Rebecca Transceivers,** new, turret tuned. Contains 17 valves: EF50, 884, 6SN7, VR150, RL37, RL18, VR135, 2050, 5V4. Plug-in 28 Mc. EF50 i.f. strip. Plug-in turrets. Six bands, approx. 200 Mc. Unit complete and packed in case ready for rail. No packing charge .... £9/10/-

## WANTED TO BUY: RECEIVERS, TRANSMITTERS, VALVES, ETC.

**English 5BP1 CRO Indicator,** new, complete with seven EF50 valves, one 879, one VR54, and one 6H6. Packed in case ready for rail. No packing charge .... £8/10/-

**U.S.A. I.F.F. Units,** comp. with valves, less genemotor, £4/17/6

**Meters—0-5 Ma.,** 1½ Ma. movement, round 2" type, new, 22/6

**Meters—0-10 Ma.** 2 inch round, Triplette, new .... 17/6

**Meters—0-100 Ma.** 2 inch square, scaled 0-300, new .... £1

**Meters—0-150 Ma.,** 2 inch square, new .... £1/7/6

**Meters—0-20v.,** 5 Ma. movement, square type, 2 inch, new, 15/-

**Meters—0-2.5 Amp.** R.F., square type, 2 inch, new .... 15/-

**Phone Plug and Cable** (4 ft.) American .... 4/6

**Phone Plug and Cable** (6 ft.) Australian .... 3/6

**Output Transformers,** well known make, 6,000 ohms c.t. to 600 ohms, 40 Ma. Max. level 30 db., new, to clear .... 35/-

**Command Receiver Racks,** twin, brand new in cartons, includes two relays, switches, phone sockets, etc. .... £1

**Command Receiver Right-angle Drives** .... 2/6

**Command Receiver Flexible Drives,** 12 ft. long .... 11/-

**AR8 Receivers,** 11 valves, 6 bands, continuous coverage 150 Kc.-25 Mc., BFO, audio controls, calibrated dials .... £15

## LARGE RANGE OF VALVES AND CRYSTALS IN STOCK

**Canadian type AR301 V.h.f. Receiver,** uses 3-954, 1-955, six 6AC7 I.F. stages at 30 Mc. Easily converted to 144 Mc. New, in case .... £8/10/- F.O.R.

**BC733D Crystal Locked Receiver.** Tuning range 108-120 Mc. I.F. 6.9 Mc. Valve line-up: three 717As, two 12SG7s, one 12SH7, two 12SR7s, one 12SQ7, one 12A6. Also contains six miniature relays, less xtal. Packed ready for rail. £5 each.

**American Low Freq. and Broadcast Band Receiver, RAX,** 7 valves, 4 bands: 200-300 Kc., 300-500 Kc., 500-900 Kc., 900-1500 Kc. I.F. 160 Kc. Calibrated vernier dial, etc. Ideal Q5'er .... £16/10/-

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Ham Radio Suppliers and Staff
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A Merry Xmas and Prosperous New Year

## 5A MELVILLE STREET, HAWTHORN, VICTORIA

**North Balwyn Tram Passes Corner, near Vogue Theatre.** **Phone: WA 6465**

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# FIFTY MEGACYCLES AND ABOVE

## FREQUENCY CHANGE FOR FIFTY MEGACYCLES BAND

56-60 Mc. available as from 1st November, 1955!

50-54 Mc. closes on 31st January, 1956!

### 50 Mc. ACTIVITY

Of particular interest to 50 Mc. enthusiasts throughout Australia, is the news that VK1ZM on Macquarie Island will again be operating on 50.94 Mc. An automatic keyer will be in use for test transmissions. VK1ZM reports that he heard New Zealand last January. Delayed arrival of the party last Xmas hampered their efforts on this band, but they are all set for an early start this season, so keep an ear open for them! VK1IJ (ex-VK3IJ), in the relieving party, will continue on with the tests as soon as possible after the changeover later this month.

FK8AL (50.4 Mc.) hopes to have his gear ready for operation very soon. FK8AL also very keen and whilst listening during 1954-55 Ross Hull Contest, heard VKs, VR2 and ZL1. Rumour has it that VR2CG will be away on holidays during this DX season, so we can only hope that other VR2s will be sufficiently interested to take his place and keep Fiji alive in the 6 mx world. Last January VR2CG worked into VK6, a distance of approx. 3,900 miles. It is expected that the Papua and New Guinea Division will be represented by VK9DB and VK9XK.

That stalwart, Col VK7LZ, will keep the VK7 flag flying from Launceston. Activity on the band from Hobart will certainly be welcome (particularly by the VK3 gang!) as the hop across Bass Strait to Northern Tasmania is a little short for Es contacts, except on very rare occasions. VK5TL will provide another interesting contact as he is located at Alice Springs. His frequency is 50.4 Mc.

### NEW SOUTH WALES

A very interesting lecture was given by Mr. Mondell on T.V.I. at the October meeting of the V.h.f. Group. Mr. Mondell has had several years on t.v.i. problems in the United States. He outlined various types of t.v.i. from all types of devices and also commercial a.m. and f.m. transmitters, and finally dealt with Amateur transmitters, explaining the likely causes of interference and the means of preventing these signals getting out of the tx.

The hidden tx hunt held on Wednesday night, 19th October, was well attended, seven cars taking part. The hidden tx (2ANF) was located in the bush at Pymble where there are many dead end streets which finish at the edge of gullies. However, Bob 2OA and party proved they could take accurate bearings, being the first to get in, the rest had to be called into the location at 9.30 p.m. All were fairly close in the area and soon arrived to partake of the hot dogs and tea.

Keith 2ZAA, of Tumut, was in Sydney during the month with his 2 mx mobile gear in the car. Keith was operating portable most nights, making a lot of contacts. He also got along to the V.h.f. Group meeting and met most of the 2 mx gang. On his way back to Tumut, Keith went up on to Mt. Gibraltar at Mittagong to make a few last contacts with Sydney. Keith is calling Sydney from Tumut each night at 8.30 to 8.35 p.m. on 144.05 Mc., so turn your beams on Tumut at that time.

50 Mc. is showing signs of life. Stations heard on the band looking for contacts were 2AFL, 2JX, 2HE, 2ARG, 2RU, 2AJR, 2ABH, and 2XX.

Coming events of the Group are: Sunday, 20th November, Fox Hunt with 2AZO as the fox; 4th December a test, with the cave explorers at Jenolan Caves with 144 Mc. gear to see the possibilities of using radio communication within the caves for exploration and rescue work.—2LG.

### VICTORIA

At the last fox hunt, the first hiding place was behind the Hawthorn tram sheds where only two of the hounds discovered the fox, Laurie 3ALY and Ray Price. The second hiding place was on a dark narrow track along the waters edge behind the Williamstown football ground. Here the only hound to discover the fox was Ray Price and his two co-navigators, Ray 3KD and John 3ZAI. Then on the run through Newport and Kingsville, the fox himself got lost and was heard appealing to any hound in the vicinity to please come and find him and put him back on the track to civilisation again. They found him all right, but would they help him? Not them. They just laughed and drove off again and left him to find his own way out of the maze of streets and Housing Commission settlements. When he did finally get back on the road again he was pounced on by Eric 3ADU who was waiting at the Koroit Creek Bridge, knowing that this was the only way he could come. Catches on the run were also made by Jack 3VZ and Roy 3ARY. All seemed to have a very amusing evening. Supper and the final post mortem was held at the home of Ray and Nance Price in Essendon. Thanks Nance and Ray for inviting us to your place. The outright winner for the evening was Ray Price and he certainly was on the fox's tail all evening.

There was a good gathering at the last V.h.f. Group meeting to hear and view the illustrated lecture given by Mr. Alan Hart, assisted by Mr. Peter Barnes with the slides. Both gentlemen were from the Radio Research Laboratories and their lecture was on Micro-wave Equipment in current use. Mr. Hart's amiable personality and interesting presentation of his lecture gave the members an enjoyable and enlightening evening and many points that have puzzled them on carrier line transmissions were explained. They were greatly interested in a 23-channel pulse system at present in use between Warragul and Melbourne. The members showed their appreciation by asking many questions which Mr. Hart seemed to enjoy answering. At the conclusion of the lecture, the President, Herb 3JO, thanked Mr. Barnes and Mr. Hart for their interesting lecture and members seconded the President's remarks by a resounding round of applause.

As a sequel to this lecture, a visit has been arranged to the City West Exchange for the V.h.f. Group meeting to be held on 21st Dec.

One of the highlights of the recent All Models Exhibition was the tx and rx belonging to Joe, 3TO, of Yallourn. The tx, which is the tx section of the 522, has one modification, the addition of a speech amplifier stage to allow the use of a xtal mike. The tx power supply is on a separate chassis and supplies 300v. at 250 Ma. and 150v. at 10 Ma. for bias. The rx operates on two bands, namely two and six mx. There is a separate front end for each band consisting of two r.f. stages, mixer and xtal controlled osc. Tuning is done at the first i.f. freq. which is 17-21 Mc., using a high C osc. and temperature compensation to ensure stability. The first fixed i.f. freq. (one stage) is 6.9 Mc. which is again converted to 455 Kc. (one stage), followed by the usual audio amp. Switching is carried out at the input to the tuned i.f., the grid circuit being connected to the output of either mixer as required. The rx has its own built-in power supply and can be removed from the rack and operated as a self-contained unit when required. The tx and rx are both fitted with matching front panels with home-made "Collins type" dial mechanisms. They are also fitted with dust covers to keep out the coal dust which, of course, is a real menace in the Yallourn area. Sprayed with grey, the equipment is a very excellent example of the fine workmanship that is always evident with all Joe Roger's gear.

Alf 3IE has been putting terrific signals on 2 mx band, and Bert 3HE has also been making appearances on that band with terrific signals, but don't let them kid you, they've both been having a loan of 3TO's gear described above. Ray 3ATN has been spending a few days in Melbourne and worked mobile during the trip on 2 mx, he also went to Mt. Dandenong and had quite a successful evening, working back to the Melbourne chaps. He was amazed at the excellent signals he received from that location. Mt. Dandenong seems to be a very popular location as David 3ZAT has spent two very successful evenings there recently, working on the 2 mx band.

Keep the Bi-monthly Scramble in mind, the next one is to be held on Monday, 5th December. The Group would like to see more v.h.f. stations in the next scramble.—Phyl Moncur.

288 Mc.: The highlight of November was Bert 3AAF going portable/mobile to Mt. Dandenong on Cup evening, 1st Nov. On his way up from Box Hill, Bert listened for signals and only 3QO's was strong enough to copy. When 3AAF arrived at the Observatory (2050 ft.) and called CQ, the 288 Mc. gang lined up on him and kept him very busy from 8.30 to 10 p.m. Stations worked were 3RI, 3QO, 3ZAI, 3ZAN, 3ZAQ, 3AAP, 3AUX and 3AHL. All sigs were S8-9 save 3AHL who was down both ways. Bert was using p.p. 7193s with 6w. input. An AR301 (modified) and a ground plane ant. on roof of car; he had with him a companion who was kept busy logging contacts (3AFJ note, said companion did NOT have blue eyes). On way home, Bert ran tone for test purposes.

Jerry Lane, 3ZBN, is on the air with good sig from Nunawading. He runs p.p. 7193s and r.b. rx, 5 el. beam and a good carbon mike. Ken 3AFJ has modified a 1045 for 288 Mc., but has no tx as yet. Max 3ATK should be on 288 Mc. but no one can find him. 3RU and 3RQ at Mitcham have 288 Mc. rx's. Evan 3AAP puts out good sig from Maidstone. 3ZAF has tx but no rx, busy with exams. 3ZAW off for a while due to chapter of accidents. Glen 3ZBJ uses his 2 mx mod. on his 7193 and sure whacks them hard; uses 6AK5 as triode in r.b. rx. Warwick 3ZBO puts out strong sig, but no rx, though 'tis said he is cooking up some diabolical device. Lance 3AHL's sigs are down, maybe gear has rusted out (his tx is on top of mast!). David 3ZAQ uses 7193s and r.b., 16 el. billboard; only trouble is his power pack belongs to family radiogram so that when 3ZAQ is on 288 Mc., no records for family! Rex 3ZBK heard testing with 3AAP recently. Bob 3ZAN busy with home extensions. John 3ZAI uses 7193s and RL18 r.b. rx, and 3 el. vert. colinear on tower; keeps calling 3QO "Col." 3QO busy with slotted lines, standing waves and other strange things. Ron 3MB at Cheltenham, what's happened to you? Geoff 3AUX punishes the gang with usual kilowatt (sounds like it any how) to 316As. Len Poynter (Pres. S.w.l. Section) has good rx and 24 el. beam. How long before you get a ticket Len? 3RI is on most Thursday evenings.

3ATN of Birchip and 3PO of Ballarat plan to go on 288 Mc. on xtal to see if they can contact one another; should have a good chance as terrain is level between them. Good luck! What has happened to the Geelong 288 Mc. chaps? Some activity in that locality would sure be welcome!—3QO.

### SOUTH AUSTRALIA

Very little news this month chaps, the main items of interest being centred on 144 Mc. as usual. Ken 5KC has completed his 144 Mc. mobile installation and several tests have already been carried out between Ken's mobile tx and the home station rx feeding a tape recorder.

Mobile duplex has also been tried, using 50 and 144 Mc. This type of operation is quite new to most of us and is extremely interesting.

Your scribe having been "bitten by the mobile bug" is flat out building a b.c. rx for the car; not to listen to b.c. programmes, but to feed a 2 mx converter into it. The converter consists of a 6AK5 r.f., 12AT7 mix./quadrupler, 6AK5 xtal osc./mult. Incidentally, Ken's mobile tx is a modified BC625A, his converter similar to the one described above.

Les 5AX had the misfortune to lose his 12 el. array in the last "big blow" we had; however, Les' spirit is still strong and he intends to rebuild, then re-erect a much stronger version. 5GL journeyed to Whyalla last month complete with 2 mx gear and collapsible beam. He reported hearing 5QR at S5. Nothing heard from 5EN or 5RI this month, country activity being held above water by Les 5AX and Comps 5EF.

Phil 5ZAD is a welcome newcomer to the ranks. Phil is using a QQE03/12 in the final, 4 el. beam and xtal converter; a nice set-up to start off with Phil.

Stations heard last month included 5KC, 5RO, 5AX, 5EF, 5GB, 5QR, 5ZAW, 5ZAD, 5ZAA, and 5AV.—5MT.

### WESTERN AUSTRALIA

The V.h.f. Group continues to grow! Three new members in Alf 6EA, Tom 6ZAF and George (A.O.C.P. candidate) were welcomed to the last meeting of the Group held in Ron 6FM's home. An apology was also received from John 6ZAN who intends joining ,but could not be present at the meeting. Membership now must be very close to 30.

The Group were very pleased to receive letters from the VK2 and VK9 V.h.f. Groups, supporting this Group's effort to have the changes to the 50 and 144 Mc. bands reconsidered. The Group has written to all State V.h.f. Groups and is awaiting replies from the others.

Barry 2ZAG was a very welcome visitor, the first Z call to visit us. Barry gave us much information about v.h.f. in Sydney and the DX workable in VK2. The most amazing thing to us was the apparent lack of activity on 288 Mc. in Sydney. In Perth there are four xtal and six mod. osc. tx's. Rx's are either super-regen. or xtal converters. Barry's talk was very much appreciated and our thanks go to him for coming to our meeting even though he had just stepped off the plane!

Barry was able to visit a number of the shacks in the few days he was here and we

hope that his visit will be repeated by him and by any others who visit this State.

**50 Mc.:** Despite improving conditions on 10 mx, this band has not yet opened to the East. Reported taxi interference on 70 Mc. from the East aroused much activity, but nothing was heard on 6 mx.

**144 Mc.:** Activity has been very quiet with many of the younger members studying for exams. Don 6DW put in an appearance the other Sunday but tests with Rolo 6BO were unsuccessful. It is to be hoped that Don will be able to put some time in on 2 mx this summer and give more of the Z boys a chance for working DX. New members, Alf 6EA and George, hope to soon put tx's on this band. George hopes to be able to operate from Mundaring and this will lengthen the haul for present Perth stations. Tom 6ZAF is having trouble with his tx, having the required drive to the final, but very little output. John 6ZAN is busy with his rx. John's departure for VK3 in January will mean that his set-up here will have to be of a temporary nature. Noticed Kevin in the spotlight with the display at his school during Education Week. Kevin put on a radio display that created a deal of interest in the v.h.f's.

**288 Mc.:** Latest development is the erection by Denis 6AW of a 13 ft. diam. parabola! We will be very interested to see how this turns out, Denis. I still want that contact!

**1215 Mc.:** Lionel 6ZAE and Len 6ZAT have taken delivery of some lighthouse tubes and Len is busy searching for copper piping of the right diam. They showed great interest in Barry's plans for his xtal 1215 Mc. rig. At the moment Lionel and Len are not contemplating 100w. in for 7w. out!

**Stop Press:** Rolo 6BO has just received the first VHFCC Award to the VK call area from "Short Wave Magazine" and his exploits have been praised in the October issue. Congratulations Rolo!

Finally, don't forget the 144 Mc. Transmitter Hunt and Christmas meeting to be held on Saturday, 17th December. Cars should assemble in Kings Park at 8 p.m. Bring along your YLs and XYLs for an enjoyable night.—6ZAA.

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TRADE REVIEW

## PLATED CRYSTALS

With the trend towards vacuum mounted and plated crystals, it was considered worthwhile to make a few checks with them.

The most noticeable advantage was the greater activity of the plated type, possibly due to the method of mounting, which removes the damping effect of pressure mounting. As the crystals are soldered in position, there is no chance of accidental movement. Tests indicated that much higher crystal current could be handled without risk of fracture than is the case with the conventional crystal.

The only known disadvantage is the possibility of faulty plating.

Further improvement can be made by vacuum mounting the crystal in a tube envelope. When so mounted, there is no possibility of dust or other foreign matter affecting the crystal. Best of all, from the Amateur point of view, the contents of the envelope are visible, thus saving the necessity of pulling the assembly apart to see "the works."

As nine-pin miniature envelopes are used, it is possible to mount eight crystals in the one assembly.

Tests were made for drift using crystals between 8 and 9 Mc. Starting from cold, the vacuum mounted crystals drifted less than 50 cycles before settling down, taking less than two minutes. Similar tests using unplated, pressure mounted crystals showed drifts approaching 1.5 Kc.

Although either gold or silver can be used for the plating, local production is being limited to silver, as the extra cost for gold is considered uneconomical.

Our thanks are due to Bright Star Radio for making crystals and facilities available to us.

# S.W.L. SECTION*

### VICTORIA

The Group met in the club room at 191 Queen Street on the last Tuesday of the month and 25 members were present. At this meeting we were very sorry to receive the resignation of our former Secretary, Gerrard Lane, who must resign for health reasons. We here in VK3 wish to thank you for services rendered and we wish you a speedy recovery. New Secretary is John Wilson who is also correspondent for this page. New Council representative is Ian Hunt.

New members for the month are 12-year-old Robert Tait, of Blackburn; M. McDonald, of East St. Kilda; K. V. White, of Bentleigh. To these chaps we extend a welcome to the Group and hope to hear from you regarding your band activities.

### SOUTH AUSTRALIA

From Len we received news of the Group's activity, stating that they are planning visits to the P.M.G. Relay Station at Bonythorn and 5CL tx at Brooklyn Park.

New correspondents from VK land are Eric M. Grick, VK5; Kevin Bicknell, of Inglewood, Rodger Runston, VK7; and Richard L. Lockerbie, of VK3. We are very pleased to hear from you chaps and all logs are gladly received.

### ZL DX CONTEST

The Heard ZL DX Contest run by the VK3 Division of the W.I.A. in September of this year was won by David Rankin, WIA-L3033. Congratulations David on your marvellous results.

### S.W.L. CALLS

To those associate members of the VK3 Division of the W.I.A. who have not yet made application for their s.w.l. number, please do so by writing to the Secretary W.I.A., 191 Queen Street, Melbourne, as soon as possible. To VK5 members, make application to Secretary W.I.A. VK5 Division, C/o. 28 Daley St., Grassmere, S.A.

So once again our Festive Season has come around. To all who have corresponded with me and sent reports of interest for this page, I take this opportunity to thank you all.

A very Merry Xmas and Happy New Year to you all from VK1-9, and all s.wl. and Amateurs everywhere.

### NEWS ON THE BAND

**288 Mc.:** From WIA-L3003: VKs 3AUX, 3RI, 3QO, 3ZBO, 3ZAI, 3ZAQ.

**144 Mc.:** From WIA-L3003: VKs 3HE, 3CB, 3KD, 3ZAI, 3ZBB, 3ZBO, 3IE, 3ZAD, 3UG, 3ZL, 3PO, 3ZBK, 3AAP, 3AKR, 3ANK.

**21 Mc.:** From WIA-L3003: W4, 8, 0, YI, ZL and CO2.

**14 Mc.:** From WIA-L3003: LU6, LU8, FK8, I1, ZL4, VK3. WIA-L3015: CT1, CO2, DL, DL6, CX2, EA2, HC1, HK3, ET2, I1, OE5, MP4, LU7, LU4, KP6, KH6, KA2, HB9, PA0, PY1, KZ5, SV0, TA3, TG9, TI2, VR2, VK1, and received cards from EA3CY and I1TDJ. Unknown correspondent: VK1, UR2, KP4, CR8, OL4, KL7, KC6, I1, VE7, W1-0. **Gordon Hepburn:** CT1, F3, EA, ET, I1, CT3, OE9, KP4, HK3, JA6, FK8, HB9, OE5, W1-3, W6, W8-0, KH6, KG6, VR2, W9MOC/P, KL7, and 43 ZLs. Cards received from ZM6AS and CO2BL. From WIA-L3019: CT1, DL4, DL1, EA7, F9HF, F1EA, G3, F8, GW4, I1, I5, JA2, 5, KZ5, KV4, LU4, OE5, PA0, SM5, TG9, VE7, VR2, 5A3, FA3, HK4, 4S7, ZM6, EA2, YB5, PY9, XE3, ON4, VK1DC. From WIA-L5007: CT1, CX2, FK8, KA2, KH6, KR6, KW6, KX6, LU4, PY4, ZM6. WIA-5004: CR9, JA2, 3, 4, 6, K6, KA2, KC6, KM6, KR6, FI2, VK9, VS1, W, ZL1-4, ZM6, DU6, F2, EI2, PY1. **Jack Clayson:** G6, KV4, KX6, VK1, VK9, W, ZL, ZS6. **Eric M. Grick (VK6):** EI9, G2, G6, CN8, KA6, ZL, W, VK. **Kevin Bicknell** (of Inglewood): 4S7, VE3, W, KA5, KA3, KG6, XZ2, DL4, VE3, VS1, KR6, KX6, KL7, JA4. **Rodger Dunstan:** W, KG6, JA6, PY2, VR2, VS6, G3, KP4.

**7 Mc.:** Kevin Bicknell: FK8AR, VK9WI. WIA-L5004: ZL1-3, W1-0, TI2GC, VK9, ZL. WIA-L3003: VK2, VK3.

**3.5 Mc.:** W2, 4, 0, KL7BJW, KL7AV, ZL, VK9.

* Compiled by John Wilson, WIA-L3004, 37 Rayment Street, Alphington, N.20, Victoria.

# FEDERAL, QSL, and DIVISIONAL NOTES

### FEDERAL

**Fed. President:** W. T. S. Mitchell, VK3UM.
**Fed. Secretary:** L. D. Bowie, VK3DU, Box 2611W, G.P.O., Melbourne.
**QSL Bureau:** R. E. Jones, VK3RJ, 23 Landale Street, Box Hill, E.11, Vic.
**DX C.C. Manager:** A. G. Weynton, VK3XU, 30 Park St., West Brunswick, N.10, Vic.

### NEW SOUTH WALES

**President:** Jim Corbin, VK2YC.
**Secretary:** Harry Hickin, VK2ACH, Box 1734, G.P.O., Sydney.
**Meeting Night:** Fourth Friday of each month at Science House, Gloucester Street, Sydney.
**Divisional Sub-Editor:** Ted Whiting, VK2ACD, 16 Louden Street, Five Dock.
**QSL Bureau:** J. B. Corbin, VK2YC, Box 1734, G.P.O., Sydney (Inwards and Outwards).
**Zone Correspondents: North Coast and Tablelands:** Noel Hanson, VK2AHH, Ryan Ave., West Kempsey; **Newcastle:** Ron McD. Stuart, VK2ASJ, 98 Dunbar St., Stockton; **Coalfields and Lakes:** Harry Hawkins, VK2YL, 9 Comfort Ave., Cessnock; **Western:** W. H. Stitt, VK2WH, "Cambijowa," Forbes; **Sth. Coast and Southern:** Eric Fisher, VK2DY, 2 Oxlade St., Warrawong; **South Western:** J. W. S. Edge, VK2AJO, Wallace St., Coolamon; **St. George:** Chas. Coyle, VK2YK, 84 Carlton Cres., Kogarah; **Western Suburbs:** Barry White, VK2AAB, 33 Flavelle St., Concord.

### VICTORIA

**President:** G. Dennis, VK3TF.
**Secretary:** D. L. Robinson, VK3ALD.
**Administrative Secretary:** Mrs. May, C.O.R. House, 191 Queen St., Melbourne.
**Meeting Night:** First Wednesday of each month at the Radio School, Melb. Technical College.
**Divisional Sub-Editor:** Phyl Moncur, 235 Union Road, Ascot Vale.
**QSL Bureau:** Inwards and Outwards—W.I.A., 191 Queen St., Melbourne, C.1, Vic.
**Zone Correspondents: Central Western:** W. J. Kinsella, VK3AKW, Magdala, Lubeck; **South Western:** W. Wines, 48 Cranley St., Warrnambool, and W. Zimmer, VK3AWZ, 70 Skene St., Newtown; **North Eastern:** A. D. Buchanan, VK3FD, "Booroondal," Wahring; **Far North Western:** M. Folie, VK3GZ, 101 Lemon Ave., Mildura; **Eastern:** K. V. Scott, VK3SS, Johnston St., Maffra; **North Western:** C. Case, Cumming Ave., Birchip.

### QUEENSLAND

**President:** Frank Bond, VK4ZM.
**Secretary:** W. J. Rafter, VK4PR, Box 638J, G.P.O., Brisbane.
**Meeting Night:** Fourth Friday in each month at the Royal Geographical Society Rooms, Ann Street, City.
**Divisional Sub-Editors:** F. B. Bond, VK4ZM, and W. J. Rafter, VK4PR.
**QSL Bureau:** Inwards—J. Files, VK4JF, Wanda St., Buranda; Outwards—Miss Clair O'Brien, 93 Jardine St., Stafford.

### SOUTH AUSTRALIA

**President:** G. M. Bowen, VK5XU.
**Secretary:** B. W. Austin, VK5CA, Box 1234K, G.P.O., Adelaide. Telephone: J 1151.
**Meeting Night:** Second Tuesday of each month at 71 Waymouth St., Adelaide.
**Divisional Sub-Editor:** J. M. Coulter, VK5JD, 69 Conmurra Ave., Ackland Gardens.
**QSL Bureau:** Geo Luxton, VK5RX, 27 Belair Rd., West Mitcham, S.A. (Inwards and Outwards).

### WESTERN AUSTRALIA

**President:** F. A. T. Tredrea, VK6FT.
**Secretary:** J. Mead, VK6LJ, Box N1002, G.P.O., Perth, W.A.
**Meeting Place:** Perth Technical College Annexe, Mounts Bay Road, Perth.
**Meeting Night:** Third Tuesday of the month.
**Divisional Sub-Editor:** R. H. Atkinson, VK6WZ, P.O. Box 127, Geraldton.
**QSL Bureau:** Jim Rumble, VK6RU, Box F319, G.P.O., Perth, W.A. (Inwards and Outwards).

### TASMANIA

**President:** F. J. Evans, VK7FJ.
**Secretary:** W. G. Tait, Box 371B, G.P.O., Hobart.
**Meeting Night:** First Wednesday of each month at the W.I.A. Club Room, 147 Liverpool St., Hobart.
**Divisional Sub-Editor:** V. F. Dore, VK7JD, 29 Brent St., Glenorchy.
**QSL Bureau:** K. A. Johnston, VK7RX, 34 Tower Rd., Newtown.
**Zone Correspondents: Northern:** M. A. Chaplin, VK7CA, 56 Trevallyn Rd., Launceston; **North Western:** S. H. Pattison, VK7UW, 36 Mark St., Burnie., Tas.

### PAPUA—NEW GUINEA

**President:** F. M. Nolan, VK9FN.
**Secretary:** D. F. Lloyd, VK9OQ, C/o. O.T.C. Receiving Sation, Port Moresby.
**Divisional Sub-Editor:** W. Holland, VK9BW, C/o. P.O. Box 76, Rabaul.
**QSL Bureau:** D. H. Beadel, VK9DB, C/o. P.O. Box 107, Port Moresby.

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## FEDERAL

### AMATEUR TELEVISION

An item of extreme interest to all Amateurs was the announcement by the Postmaster-General (Hon. H. L. Anthony, M.H.R.) that permits would be granted to licensees of Australian Amateur stations to engage in television experiments.

It will be remembered that for some time past the Institute has been desirous that licensees should have this special means of communication available to them. No doubt that now permission has been granted, Amateurs will take a keener interest in the techniques necessary for this medium.

It is particularly gratifying to know that once again the Amateur experimenter is acting as a pioneer in this field of radio. As soon as the necessary regulations are framed (and this is now in progress), numbers of Amateurs will commence the first television broadcasts in this country.

### AMATEUR TELEVISION IN GREAT BRITAIN

In view of the above, it is worthy of note that an Amateur Television Convention is being organised by the British Amateur Television Club.

This, incidentally, is not the first. Another was held in 1951 and experiments were conducted as far back as 1930.

The fact that a convention is being held proves that interest quickly grows and it may not be long before such a convention is held in Australia.

### R.S.G.B. NEWS SERVICE

It is interesting to hear that the Radio Society of Great Britain will soon be commencing a News Bulletin Service on a frequency of 3,600 Kc. This frequency, it is hoped, will give a maximum coverage of the country.

The weekly service, which is in the hands of a small committee, aims at a "newsy" up-to-the-minute broadcast.

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## FEDERAL QSL BUREAU

### RAY JONES, VK3RJ, MANAGER

It is understood that in January next, ZL2GX is going to the Kermadec Island and will be active from that location.

Leny, of VQ8AB, states that a VQ4 is in VQ9 and trying to get a rig on the air despite many difficulties and without much local encouragement.

AC5PN, a newcomer, is currently active from Bhutan on 14 Mc. c.w.

Ray VK9RH advises that he is now the only active station there since VK9OK has left Norfolk Island.

FK8AI has left New Caledonia and is now located at Dept. Civil Aviation, Marguane Airport, Marseilles (France).

News of the death on 13th October of Georges Courtot, FK8AN, at the age of 43, comes from FK8AC.

George Elliott, ex-G5LI, now VE2LI, at 5225 MacDonald Avenue, Montreal, Quebec, Canada, is active on 7 Mc. c.w. George is in charge of the Canadian Broadcasting Systems a.m., f.m., and t.v. services in Canada, which keeps him well occupied, nevertheless he is still the same keen Amateur as ever and is on the lookout for VK signals on 3.5 Mc. as well as 7 Mc. His first VK QSO as VE2LI was with **VK2XZ** in August, and since then he has QSOed VK2, 3, 4, 5, 6, 7 on 40 metres.

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## FEDERAL AWARDS

### W.A.V.K.C.A. AWARD

Further applications have been received as per details below. From information gleaned, I have discovered that this is not an easy award to secure although it was intended that it should be reasonably easy when Federal Executive drew up the rules.

The one and only reason why it is not easy is the fact that the VK5 stations in the Northern Territory do not QSL. Only one card for the Northern Territory per applicant is required, yet I find that there are literally dozens of overseas Amateurs who can qualify for the award except that they lack the VK5 Northern Territory card.

Northern Territory Amateurs who are still resident and those who are not now resident are asked to please send out their cards. This is not asking much, but it means a great deal to the many operators who need that card for their award. Al Scarlett, W2CC, tells me that he finally got a card from one of the Territory gang after 7½ years!

Certificates were issued during the month to the following: Eugene B. De Turck, W6YC; Albert E. Scarlett, W2CC; W. W. Simpson, W8KPL. Total Certificates issued, 18.

### D.X.C.C.

I have done a little research with a view to finding out whether it is true that DX is easier to work from some parts of this country than others. As a basis, I took the D.X.C.C. records of the three leaders in each call area and carefully examined them to ascertain what they had worked and when they did so.

I secured a lot of data, but quite a lot of it did not really answer all the questions that I had in mind, since I have no data on the gear used and the antennae systems. However, I did discover that the leaders seem to follow in the one pattern, which is interesting. The following details may be of interest to the DX enthusiasts now that the DX cycle approaches and the boys are warming up their gear on 21 and 28 Mc.

1. The bulk of the DX has been worked on 14 Mc., however the more difficult contacts have all been made on 28 Mc. Difficult means rare in this particular case.

2. 28 Mc. phone contacts made immediately after the band was returned to us after the War provide a very high percentage of contacts with the rarer countries. 28 Mc. c.w. did not take on so well, but I can find no valid reason for this.

3. The 7 Mc. band provided the least DX so far as confirmations in the D.X.C.C. records are concerned.

4. I notice that the VK6 stations seem to find it difficult to work into the Caribbean area and into Northern South America. The VK5 stations find that South America is difficult and the Tasmanians seem to have spots of bother with several parts of the Globe.

5. The following countries are hard to get from all over VK land. Some of them are not populated by Amateurs. of course, so even the W kilowatt stations can't break in. The list is long and should provide the leaders with a task for the future. Here they are: Afghanistan, Albania, Aldabra Is., Andaman and Nicobar Is., Ascension Is., Bhutan, Cape Verde Is., Clipperton Is., Christmas Is., Cocos Is. (TI9), Comoro Is., Crete, Faeroes Is., Franz Josef Land, Gambia, Port. Guinea, Span. Guinea, Ifni, Jan Mayen Is., Laccadive Is., Maldive Is., St. Pierre and Miquelon Is., Mongolia, Principe and Sao Tome Is.. Rio de Oro, St. Helena, Seychelles Is., Sierra Leone, South Orkney Is., South Sandwich Is., South Georgia Is., South Shetland Is., Svalbard, French Togoland, Tokelau Is., Tristan da Cuhna Is., Turks and Caicos Is., Vatican City, Wrangel Is.

6. There may possibly be one or two more, but the bulk of them are as above. Quite a lot of these countries either have or have had a Ham population so that they are not all impossible places to contact. The fact remains that the leaders of the D.X.C.C. in this country do not find them easy and with one or two exceptions none of them have worked any of the countries listed above.

7. Get busy you Amateurs with the super beams and see how you can make out.

—Gordon Weyton, VK3XU, Awards Manager.

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## NEW SOUTH WALES

### HUNTER BRANCH

The October meeting of the Hunter Branch of the N.S.W. Div. of the W.I.A. was well attended by Amateurs, XYLs and YLs of the

Branch to hear Bill Storer tell of his experiences in VK1 land. Bill gave a very interesting account of things in VK1 and showed some educational films of the Antarctic.

Arrangements are well in hand for the Hunter Branch Xmas Social to be held on Saturday, 10th December, 1955, in the Charlestown Institute. The social committee has promised some startling surprises for this year's "do," so do not forget to come along and join in the fun.

There will be no meeting of the Hunter Branch in December, the next meeting will be held on Friday, 13th January, 1956, at 8.0 p.m. at the Newcastle Technical College, Tighes Hill. Listen to VK2AWX, the official station of the Hunter Branch, each Monday night on 14100 Kc. at 8.0 p.m. for further details.

Ernie 2FP has at last obtained an AT5. Doug 2ADS active on 144 Mc. Fred 2AGY busy in his new vocation with little time for Amateur Radio. Arch 2AWD has joined the Institute at last. Dave 2BZ active on all bands again. Harold 2AHA hopes to have the beam working early in 1956. Jim 2ZC still looking for time to put his gear in operation again. Bill 2XT and gang are all set for Woy Woy. Varley 2SF active on 40 mx. John 2XQ and Lionel 2CS active on the "gentlemen's band." Frank 2FX still busy with alterations to QTH. Ken 2KG should be active again shortly. Charlie 2ARV planning a new aerial. Neil 2XY has forgotten all about vest pocket beams. Les 2AOR and Leo 2QB active on 20 mx. Jim 2AHT having trouble with his pan-adapator. Ron 2ASJ hopes to be active again before the New Year.

The Hunter Branch takes this opportunity of wishing all members of the W.I.A. the Season's Greetings and the best of DX for '56.

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## VICTORIA

At the general meeting George 3AG gave a most interesting lecture on "Ancillory Equipment in both home stations and for field days." The lecture was illustrated with explanatory slides with a few very amusing ones here and there which brought about a good laugh from the members, particularly the final one, that of a very portly gentleman, i.e. a caricature of George himself. George delivered his lecture in a most unique manner; he had previously recorded it on tape and all he had to do was to switch on and sit back and listen with the rest of the audience. Can't help feeling what a wonderful idea this would be for some of the members who have the knowledge to give very excellent lectures, but who lack the confidence to stand up in front of a large audience. Perhaps this might be a way for the members to benefit from some very interesting lectures that have hitherto been lost to them.

New members to the Institute were welcomed. They included 3XI, Harry Duggan, as a full member, Messrs. Johnson, McKellar, Wescott, Hohenfels, Thomson and Searby as Associates, and Messrs. Kayne and McDonell as Junior Associates. Members were all very pleased to welcome back Geoff Clarke, 3DF, ex-3PD, who has been abroad for the past three years.

The general meeting to be held on 7th December will take the form of a Xmas Break-up to which the XYLs and harmonics are cordially invited, the programme will be a selection of films suitable for the family.

From what I can get out of the OM the Annual Dinner seems to have been a huge success, but I'm feeling very peeved as he won't tell me any of the jokes. Max 3ZS' idea to run a dinner dance during next year, to which the XYLs will be allowed, seems a terrific idea to me. However, officially, here's the report on the dinner. On 4th November, members of the Victorian Division entertained at a Dinner, officers of the P.M.G's. Department, the Defence Services and representatives of the radio trade and press. It was very capably organised by Max 3ZS on behalf of the Division and was extremely successful, over seventy members attending. This function is becoming increasingly popular and seems assured of a permanent place in our calendar of events. We hope to see even more members there next year. An official photo was taken and copies may be obtained by booking your order with either Max Hull at MU 2426 or the Victorian Division Office at MY 1087.

Ian 3ZAM, who recently attended a Scout Jamboree in Canada, has since travelled through Holland, Germany, Luxemberg and Belgium to London where he will be spending the coming two years in order to further his studies in electronics. He is considering taking a position in an electronics drawing office at Rugby. He has written home to say he has visited the Palace, the Tower and the Abbey, also the Radio Society of Great Britain where they were all very interested in our activities here in VK. Their activities are much the same as ours, although the fox hunt is a completely new idea to them. Mobile work is a very popular past-time on all bands in G land and at a recent rally they had 75 mobile units attending.

The recent newly weds, the 3FO's, appear to be settled in at their new QTH at Maldon as Col has been heard several times on the air. However, other recent bridegroom, Jim 3ABA, doesn't seem to have much hope of getting back on the air as his new QTH has a very large garden to be laid out, so Jim will just have to get down to earth with the "pickle and shuv," but it is whispered that he looks longingly at his rotary clothes line.

Max 3ZS recently spent a holiday in VK5 where he was entertained by the President, Gordon 5XU, at a dinner, and at their Council meeting. He had a chat over 5WI on the Sunday morning broadcast and visited 5DN Adelaide where George and five other Amateurs are employed. He also visited 5PS. Heck there is that Pansy in the VK3 notes again, he's always getting the wrong column, that bloke! —Phyl Moncur.

### 80 METRE TRANSMITTER HUNT

The 80 mx tx hunt was held in perfect sunny weather and Len 3LN, who hid the tx, chose what all the XYLs and harmonics thought was a most suitable spot. It was down at the beach at the far end of Altona. We must mention here that Laurie 3ALY, on arriving at the location, was very put out at Len's choice of location as he had found the identical spot himself a few weeks previously and was saving it up for the next time he would be hiding the tx. The antenna, which Len made very obvious just to help the chaps, was fed from a 300 ohm ribbon which passed under a root of the tree holding the antenna. At this point of passing under the root, a lead was taken off at right angles to the tx, power supply, battery, etc., which was completely buried in a box under the ground and camouflaged on top with a huge stump of an old tree and some replanted weeds. Back at the junction under the root, the 300 ohm line continued on to the beach, which after much meandering was terminated with a rock tied to the end, some four to five feet deep in the sand. Len's kids sure did a lot of digging that day.

This, however, had the desired effect and most of the competitors followed the false lead to the rock in the sand. All were able to enjoy the fun as all competitors were on the site before the tx was actually located by 3ADU and 3OJ who dead-heated for first, closely followed by 3ZAD and 3ALY. In the toss up, Bob 3OJ won the privilege to hide the tx for the next hunt.

The hunt wound up with a picnic tea on the beach, which all seemed to enjoy. In order to prevent clashing with the Zone Convention at Colac, the November hunt was postponed until Sunday, 4th December, and of course there will not be a hunt on 11th December, as advertised in last month's mag. What about coming along to the next one, you'll find it a very pleasant afternoon out with a friendly crowd whose interests are the same as your own.

### BI-MONTHLY SCRAMBLE, OCT. RESULTS

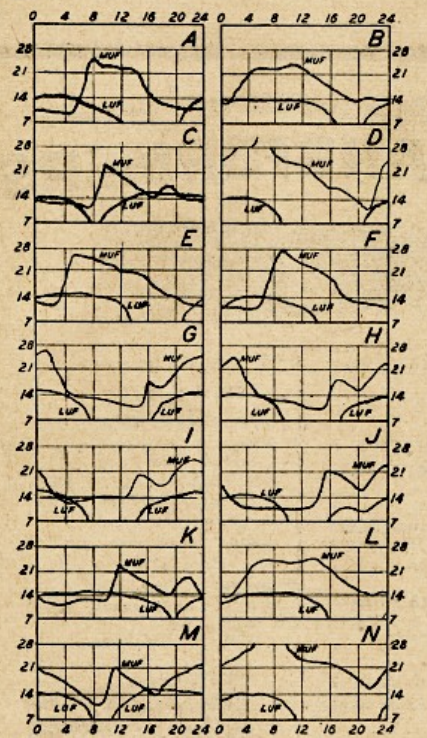
The first Bi-Monthly Victorian Scramble was held on 3rd October, 1955. A good number of Victorian Amateurs participated. The majority of contestants operated on the 7 and 144 Mc. bands. The Scramble was a complete success, although a larger number of logs would have been desirable.

The top scorer in Section C was 3AAP with 16 points, earned by contacts on 7, 14, 144 and 288 Mc. Section D was won by WIA-L3027 (3ZAT) who listened on 7 Mc. only.

Section C: 3AAP 16 points, 3ADW 15, 3ADL 14, 3ALY 13, 3YQ 12, 3YS 12, 3ZAE 10, 3OJ 8, 3ZBE 7. Section D: WIA-L3027 (3ZAT) 15 pts., WIA-L3015 14 pts. Check log: 3AHH. Checking: 3HE and 3AHH.

Transmitting Amateurs resident in the State of Victoria and Short Wave Listeners resident in the Commonwealth of Australia are reminded that the next Scramble will take place on 5th December, 1955. The rules can be found on page 12 of "A.R.," September, 1955. Logs must reach the Divisional Contest Manager, W.I.A., Vic. Div., 191 Queen St., Melbourne, C.1, on or before 31st December, 1955.—3AHH.

## PREDICTION CHART FOR DEC., '56




A—Eastern Aus. to West. Europe—Short Route.
B—Eastern Australia to South Africa.
C—Eastern Aus. to West. Europe—Long Route.
D—Eastern Australia to Far East.
E—Eastern Australia to Mediterranean.
F—Western Australia to Western Europe.
G—Eastern Australia to North West U.S.A.
H—Western Australia to North West U.S.A.
I—East. Aus. to North East U.S.A.—Short Route.
J—Western Australia to North East U.S.A.
K—East Aus. to North East U.S.A.—Long Route.
L—Western Australia to South Africa.
M—Eastern Australia to Central America.
N—Western Australia to Central America.

### CENTRAL WESTERN ZONE

During the month we were sorry to loose Associate Member, David Goldsworthy from this zone. He has moved to Melbourne, so we wish him all the best of luck in his new sphere of work. In loosing one member, we have also gained one in Charlie 3IB. He is on the air from Lubeck using his clamp tube modulated, band-switched rig. He has also re-built one of his old tx's using a break-in system, and he is very pleased with the advantage of break-in. A new call heard during the month was 3AJX, Alan, from Horsham. Very pleased to welcome you Alan, and hope you enjoy your "haming" days with us.

Called on 3AKP the other day. Keith has been very busy of late so has not been able to spend much time on the air. The storms which passed the Stawell area recently caused a fair amount of damage, and this has added to Keith's worries in keeping one of the major services in operation. Herb. 3NN, Merv. 3AFO and Jim 3DP, zone hook-up regulars, all report conditions improving on the DX bands, so guess those interested in DX will be populating those bands more often in the future.

### SOUTH WESTERN ZONE

There is not very much at all this month from the zone other than Col 3FO was a visitor to Warrnambool a couple of weeks ago. He was accompanied by his XYL. He hopes to make the new QTH Castlemaine, after approx. 25 years in Bentleigh. All the chaps here in the zone wish you both every success and a happy life together. Harry 3XI is still very active on 20 mx. 3EQ has not been very active with radio owing to the pressure of work in the picture industry. Harry 3HF is coming back to his old style on 14 Mc. I hear him quite frequently working the States. 3NA is not very active as his profession does not allow him much freedom for radio. John 3AGD seems to be very keen on these boats, also Lin 3ARL was up at John's recently for a few days.

It is hoped that everyone had a good time at Colac at the Convention. Well chaps, as this will most likely be the last notes for 1955, I will wish all zone members and XYLs and all members of the W.I.A. a very Happy Xmas and a Prosperous New Year for 1956.

### NORTH EASTERN ZONE

It is expected that Doug, soon to be VK1IJ, will be leaving with the party for Macquarie Island about the time these notes appear. Alan 3UI is constructing a mobile rig for the lower frequency bands to facilitate v.h.f. work. Keith 3JC and Harold, the former holder of the call 3FD, were met during a recent business trip. Stan 3AGT is still missing. Les 3ALE and his XYL are receiving congratulations on the birth of a daughter. Brian 3ASF, Bruce 3AGG and Johnny 3ACK have all been heard on 40 mx, but nothing has been heard of Ted 3AOB and the Command rig, nor how Alex 3AT is going on the colour photography.

Peter 3APF is often quoted on this and that, and Murray 3HZ had his photograph in a recent issue of the provincial news-sheet, but our Secretary, Earle Scoones, has not been seen recently. Jan, our PA0 friend, must be still about, and John 3ZBG is believed to be on 2 mx in the city. Col 3WQ visited Vern 3AXW the other day for the first time since the latter was licensed. Those Associate "prospects" up there in Cobram are taking a promising and keen interest. Syd 3CI is doing well on 15 and 10 mx. Frank 3ZU is quiet and is not going away for a while yet. Jack 3AKC is, of course, still troubled with the 66,000v. noise.

Des 3BP heard on the air. Henry 3HP helping Ron 3AQG to get his rig going. Bill 3AWQ is now on the air, and Jim 3JK is constructing a mobile rig round a 1625 final. Ken 3KR is going quietly on the DX, while Jack 3PF and Vic 3ABX are very quiet. However Hugh 3AHF is having success on 20 mx with his "drooping ground plane" antenna. George 3GD and Tom 3TS are probably well on to the 10 and 15 mx DX and it will be interesting to hear how Bill 3JP is going on 20 mx. Keith Cakebread missed the c.w. last exam., better luck next time OM. Jim Harrington would like to be at the next Convention when it comes around. From Des 3CO it is learned that a Radio Club may be formed at Puckapunyal soon. Lastly it is understood that Howard 3YV and Bruce 3QC have been side-tracked on to colour photography.

Amateurs in this North Eastern Zone wish Amateurs everywhere a Merry Christmas and a Prosperous New Year with interesting DX.

### GEELONG AMATEUR RADIO CLUB

The visit of Earl W1DKC/MM, Radio Officer on the "Pioneer Bay," created an agreeable surprise. Many of the Victorian lads exchanged QSOs and QSLs. Earl addressed club members on t.v. and its place with Amateur Radio transmission. The speaker was well versed in his subject, being for many years a field engineer with Westinghouse. We hope Earl can visit this location again in the near future.

Phil 3PG gave two interesting talks on telephone equipment. Soon Phil will be a resident in VK2 and we hope to hear him often, and wish him all the best in his new venture.

Chas 3XH demonstrated the latest techniques in v.h.f. equipment at a visit recently. Later he and his XYL presented an excellent supper for visiting members.

The visit of Glen 3ZBJ was welcomed among the 2 mx fraternity. Glen's visit down here was long enough to convert some of the 40 and 80 mx boys to 2 mx. So Max 3BQ can hope to hear some signals soon.

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## QUEENSLAND

After quite a few months' absence, notes from the Brisbane area are again making an appearance in this issue. Bill 4YA, who started the year as Secretary, had to resign due to serious illness, and Keith 4DG had to resign as Chairman as his job took him north. Frank 4ZM took the chair and Jim 4PR the job of Secretary. As they work together, they took on the job of writing notes for "A.R." Being raw at journalism, it was decided to keep the first effort to personal pars until more "clues" were obtained on the subject.

4XL, who was chairman and scribe last year, is taking a well earned rest (he is one of our bosses—4ZM and 4PR). He's fishing a few weeks away and we hope he catches some of the elusive ones. 4CC is having great success with cubical quads. Congrats, Clive, on topping VK4 in the R.D. Open. 4NR shifted to a new QTH and built a brand new rig, which sounds very nice. 4DG is expected back in Brisbane around February, '56. He can be heard on 14 Mc. when skip is OK. 4TT, with a new "ZL Special," seems to be getting out especially to GM. He speaks the language fluently. 4VJ is still bowling 'em over with s.s.b. and acting as a very welcome advisor to the new Chairman and Secretary.

4YA showed slight improvement, but is still very sick. All members hope Bill will be back with us soon. 4TN reports good daylight DX on 21 and 28 Mc. What is it, Aussie, your 500th QSO with HP3FL now? 4GE gave another interesting film show at the October general meeting. 4JO is an a.c. band man. How about coming down on the d.c. bands John 4FP had a trip down to VK2 recently in his "Jag," complete with mobile rig. 4HZ dropped in to the October general meeting. Jim is in temporary exile from Gympie. 4WD is back in his old QTH and we hope to hear his signals rocking the bands soon. 4EW hasn't been on for quite a while because he has the hi-fi bug. Oh for the pre-war days with music on the bands, Eddie.

Well, the notes may be a bit loose, but give your scribes a chance. Remember the Christmas "Do" at Anzac House on 17th December. Roll up one and all and make it a great success. A Merry Christmas and a Successful New Year and with the bands opening as they have been, it should be just that.—4ZM and 4PR.

### MARYBOROUGH

4AI returned from Sydney where he visited shacks of 2BG and 2FM. Has since chased bugs out of his speech amp. and is trying a dynamic mike. Has also put together a 50 ohm standing wave bridge. 4BG also acquiring a bridge, 75 ohms, so some efficient antennae should soon be in operation. Ron is scratching up more grid drive for 21 Mc. operation. 4CB only listening until he gets time to put that tower up. Meantime rebuilding his exciter unit, using a Geloso v.f.o.—4BG.

### TOWNSVILLE

Summer is certainly upon us with a vengeance as this month the temperature reached nearly 100 degrees and that is quite a high reading for Townsville. It has also brought in the usual QRN from dry storms in the vicinity, coupled with the dust on the insulators and transformers on the h.t. lines, due to local cement works. Especially as the evening dew falls and whacko the static discharge that takes place on all h.t. lines.

The October meeting took the form of a film evening and unfortunately the roll up was not as large as previously. The films were very good, especially the colour film on the "Atom."

Next meeting will be a film and lecture combined on "New Guinea."

Not much happening on the bands in this locality. 4EL heard in the "CQ" Contest on 21 Mc., but not much heard here due to QRN. 4WH on holidays and giving the bands a doing over, while waiting to go out to Barrier Reef with the fishing fleet and hoping to get a larger Tuna than the one on his special QSL card.

4EJ in constant touch with KA2OO re variations in tuning the shortened beam. 4BE busy helping in the house and not much time for radio due to arrival of son and heir; congrats to Shirley and self, Allan. 4LR still playing with a beam and heard on 14 and 7 Mc.

No truth in the statement that John 4DK has been presented with a pair of large glass bulbs, ex-Japanese fishing nets, as hour glass timers for timers in one over of a QSO!!

Bill Hanson, R.A.A.F., ex-VS1FD, missed out sitting for last exam. due to Her Majesty requiring his services elsewhere. So Bill hopes the powers that be will allow him to sit for a special exam. and thus get on the air. Norm Protege, of Andy 4BW, anxiously awaiting results of last exam. Quite a large gathering takes place on 7 Mc. at 1.30 p.m. on Tuesdays and Thursdays, and 10 a.m. on Sundays. Covers from Sarina to Atherton. Listen for the Black Crow in the background of 4BW's transmission, plus the fowl yard, that mike is certainly sensitive Andy.—4RW.

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## SOUTH AUSTRALIA

Well, fellers, you have no doubt heard of my recent terrifying experience. Some evenings ago, in search of copy for these notes, I inadvertently wandered into one of those low dives much frequented by certain officials of the W.I.A., to whit, presidents, secretaries, treasurers and taxation officials. After the third or fourth coffee (very different from the hospitality offered in VK3), I was hustled into a car and upon my awakening found myself on the high seas in a ten thousand tonner bound for Palembang. I realised that I had been "shanghied." What was behind this dastardly act? Envy! With me out of the way the President was free to write the notes and Secretary able to assume the duties of Federal Councillor. What beauties! (My apologies to Edgar Wallace).

But with my sunny nature one finds compensation even in adversity. Apart from being forced to work such DX as Rome and Bolinas, I found life very pleasant. My brother officers, all Italians, were most sociable and introduced me to some strange but delightful dishes. I now pour oil on my "scran" with reckless abandon.

I could say more about this trip, but I can assure you that steaming under the flag of the "Flying Red Horse" has much to recommend it. Whilst it is true that travel is educational and tends to broaden the mind, it was with regret that I could not help the good Doctor with his problem in anatomy.

The monthly general meeting was well attended. Whilst the President and his minions were in attendance, I am afraid that the best part of the meeting was conducted by Messrs. Whitburn and Coltman. These gentlemen gave their services, wit and sarcasm most freely, in disposing of a deceased member's equipment and surplus gear of other members. Dougal's remarks concerning the disposal of a deceased member's equipment should make us all pause and think. Ex-Naval types may remember the auctioning of "dead men's kit." Pieces of kit often brought fantastic prices as the money obtained went to the deceased's next of kin. I would like to suggest that we cease to regard "dead men's gear" as a source of cheap equipment. Let our tenders be generous and in keeping with value. The money raised may be needed by the kin's folk.

A letter from the Alice contained items of interest, one of which should perhaps have been handed on to our v.h.f. scribe, but there is little or no honor among amateur journalists. Tom's reply to enquiries as to when he will be on 50 Mc., "I dunno." It seems to me that Tom is working hard on the project, but is unable at the moment to make any firm statement as to the day and time.

A quotation from the "Australian Post Office" should indicate to all who read this publication that F.E., as the instrument of your Federal Council, has put in some sterling work over the past few years. With the support of members this good work can continue.

I cannot remember the Federal Contest Committee ever being properly introduced to members. This state of affairs should be corrected. I shall endeavour to do so without regard to their blushes. First let me say that they are all keen and able men. Correction; one is a passenger. Gordon Bowen, the Chairman, combines this duty with a dozen other activities, most of which are connected with Amateur Radio. The way this fellow makes use of his time is amazing. Reggie Harris, as Secretary, is an example of a square peg in a square hole. He just laps it up. His orderliness has to be seen to be believed. His letters are gems. The Contest Manager, Jim Vivian, does a job which very few could. His organising of log checking is excellent, but his real worth will not be evident for a year or so. His analysis and suggestions for improving contests will, I am sure, bring him fame. Reg Galle has a flare for pointing out the weaknesses in our discussions, particularly concerning operating, whether on h.f. or v.h.f. I am the passenger.

At the special Council meeting, held to discuss emergency communications, we were honoured with the presence of the Federal Vice-President, Max Hull. He looks somewhat less harassed than when I saw him last. Perhaps V.P's. have perks unknown to secretaries and scribes.

It was with deep regret that I learned of the passing of Harry Cooper, 5PC. I first met Harry in Darwin where he was Radio Officer in Kuru, a Department of Interior patrol vessel. He was a good friend and a good radio man.

Philosophy, psychiatry or whatever is not my line. In fact I am more at home with certain cronies drawing circuits with a thumb nail dipped in beer than sitting in front of this mill. However, I cannot help but think that in these post-war years we Amateurs are losing, nay, have lost, our sense of humour. Until recently I thought this condition peculiar to Australia, but recent "QST" correspondence indicates that we are not alone. The Larson E. Rapp articles which I thought divine are being strongly objected to. Why? Can't the Amateur take a "leg-pull?" In this country such characters as the "Gremlin" were slapped down. An amusing little short "My XYL Says" no longer appears in our mag. Why? Are we that short on humour that we can't take a jibe at our signal or our operating habits? I think that wise old R.I. summed the situation up a year or so ago when he said, "You can call the Ham a heel, but don't mention his signal!"

My country correspondent, Stuart, of the Mount, advises that things are rather quiet in the South-east although the monthly meeting was well attended. 5CJ, alleged to be on holidays, was observed working on the shack. In between times, he has been heard on 7 Mc. and keeping skeds on 144 Mc. 5ZAG is another sked-keeper, but results are not reported. 5CH is building. Probably preparing against t.v.i. 5KU is not as active as of yore, but I understand that the storm damage has been repaired. 5FD is going all high-hat or hi-fi or something. But he'll get tired of that. I have still to see a record changer to change the changer. 5MS apologies for his absence when 5XW and 3XI paid his shack a visit—bad luck fellows!

It was pleasing to receive a few lines from 5FY, outlining events in Woomera. The births and deaths columns in that town revealed that there are now two more bonny bouncing Amateurs operating under the calls of 5QW and 5AS. W3WRJ was entertained by the Club and was able to say a few words to the States. 144 Mc. activities of this Club are on the move and when more definite news is to hand will have to make some arrangements for the details to be passed to our v.h.f. scribe.

This more or less rounds off our country coverage with thanks to those who contributed. I trust these fellows will continue the good work and accept mention in the notes as an acknowledgment.

Time staggers on, 'tis now midnight. I hope I have amused some of you, annoyed others, and that I will receive some blistering letters advising just how this column should be conducted. Include some material, and for those unable to write, phone UM 3855.—5JD.

— . . . —

## WESTERN AUSTRALIA

The usual monthly meeting of the VK6 Division was held in the Technical School, Mounts Bay Road. Roger 6RK gave the lecture for the evening. His subject, Distance Measuring Equipment, proved to be extremely interesting. He brought a piece of v.h.f. D.M.E. equipment—the tx and rx used in aircraft—for inspection. Several 2 mx addicts present were observed casting covetous glances at same! Some lively discussion took place during the meeting re the proposed changes in the 5 mx and 2 mx bands. Further information is being sought from F.E.

My predecessor, Harry 6WZ, is in the process of settling into his new QTH at Albany. Best of luck in your new enterprise Harry. Hope to hear you on the air again soon—as an Amateur, we mean!

Two calls have re-appeared on the air recently after long absences—Bill 6WP made an appearance on 80 mx and Bill 6DJ has been heard working 40 mx c.w. on several occasions.

**Band Activity—80 mx:** With the opening up of 20 mx, there is little 80 mx activity, although regular appearances are made by yours truly, 6LG and 6TR. 6MO also pops up occasionally.

**40 mx:** This band has been open to VK3 and VK2 till 2100 almost every night and one or two VK6s have been heard working East. There is usually a fair amount of activity between VK6s on Sunday morning and afternoon.

**20 mx:** Some good DX has been coming through and quite a few VK6s have been heard making the most of it, working America, Africa, Asia and Europe nightly. Your scribe still sheds an occasional tear at losing a ZP5 the other night!

**15 mx:** Here also some very good DX is coming through, particularly from South and Central America. 6RU, 6HK and 6BO and others have been heard working.

Don 6HK is jubilant at working an HK on 15 mx. Nice going Don. News has come through that this State was defeated by VK5 in the R.D. Contest. Congrats VK5, but we warn you that we really intend to do something about the matter next year.

You are reminded that the Annual Social event of the Division will be held in December. Full details will be given in the News and in the Bulletin.

During December, a 2 mx fox hunt is being run by the V.h.f. Group and a cordial invitation to all VK6s who have equipment has been issued. Details may be obtained from 6BO or 6ZAA (Phone L 1203).

That's the lot for this month, chaps. You are reminded that any news may be passed to to me via Phone M 1130.

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## TASMANIA

Len 7LE turned up with quite an excellent idea last month when he took over the notes for me, and I can't think of anyone better to send the summonses and libel suits to than 7LE. May it please your ham-ships to continue on in that direction. Anyway, thanks once again Len for taking over at such short notice.

The November general meeting took place in the Clubrooms on the 2nd of the month and some twenty members attended. Ted 7FJ presided, with Secretary Bill Tait standing by on the frequency. The lecture, by Professor Baxter, was entitled "Atomic Energy," and was replayed from tape.

A suggestion was put forward for consideration, that in view of the fact that Australia is to be the venue of the next Olympic Games, a message should be sent to Mount Olympics in Greece, from its namesake in Tasmania.

Another suggestion was that a competition be held for the construction of portable equipment along specified standardised lines. Such a competition should produce equipment which would be of great service for emergency conditions, and the committee has these matters in hand. (Should produce some technical articles for the magazine.—Sub-Editor.)

A social evening is also contemplated for 14th December and doubtless there will be more information on this anon.

Chris 7XW has now settled in at Colac. In the hope that you may glance at the VK7 notes Chris, we take this opportunity of wishing you all the very best in your new sphere of activity, and our thanks go to you for all your efforts on behalf of Amateur Radio in Tasmania. Our loss is VK3's gain.

Len 7LD, having sold his business, hopes to have more time for Amateur Radio in the future, and is now busy rebuilding, so it should not be too long now before he is back on the air again. Good work, Len. We can well do with another hand if we are ever to clasp that R.D. Trophy lovingly to our breast again. There is another addition to the 7RX establishment—now, now, come, come. Whatever made you think of that. It's a lovely new D.X.C.C. Certificate, and we congratulate you most heartily Keith. Of course, Keith, it would also give me great pleasure to give you a write-up on the subject you thought of at first—yes—and the same to you.

I believe that photography is getting the upper hand with Bill 7AK on Flinders Island. It has been suggested that such outposts of the Empire are not complete without a 2 mx rig, Bill, so what about it? It should look very effective with our expensive camera sitting on top of it.

Taken all round, I think perhaps Amateur Radio IS being neglected somewhat, because congratulations are in order for Associate Rex Belbin, on the arrival of a baby son. You might as well get your ticket Rex, because, believe you me, you're going to get QRM regardless. Owing to pressure of work, Bob 7AF has had to relinquish his position as Councillor, and his resignation has been regretfully accepted. Over a period of years, as Councillor, he has rendered great service to the Institute, and we thank you Bob for your efforts on our behalf. Tom 7FM has been appointed Councillor in Bob's place.

I understand that the Walking and Rescue Club were very satisfied with our communication effort in their recent exercise, and would like the Institute to participate in the organisation of another emergency exercise.

Len 7LE has succumbed to the enchantment of galactic noise, and recommends it as a

complete change from the usual run of sponsored programme. I rather gather though, Len, that the QSL position is not the best at the moment.—7JD.

**NORTHERN ZONE**

A few are getting ready for the opening of the old 5 mx band once again. 7BQ and 7LZ have constructed beams and rigs are ready. 7PF was seen putting up a similar beam recently. 7RK looking very prosperous with a new car and 7LZ is now mobile. 7PH and 7LZ have been giving 21 and 14 Mc. DX bands a thorough working and results have been satisfactory. 7RL has moved from Stanley on the North-West Coast and has been on the air from King's Meadows, Launceston. 7EJ was heard on the air last week—the first time for many months. 7GM has completed his rebuild.

7WI has been fairly consistent the last few Sunday mornings during the broadcast. 7RB has been spending his spare moments making recordings of local artists for broadcasting. 7TE has shown renewed interest in the bands and purchased a converter from England. Some local Amateurs had a taste of t.v.i. inasmuch that interference has been caused to local taxi services in the 80 Mc. band—getting pretty close to those t.v. channels. Have not heard our old member, 7XW, now 3AXG, on the bands as yet. Doug 3FH has been to Flinders Island again and nearly missed out on the phone last week.

# HAMADS

**1/- per line, minimum 3/-.**

Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received by 8th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line. Dealers' advertisements not accepted in this column.

**FOR SALE**: 100w. Station. TA12D Transmitter, Modulator and Preamplifier, band switched 80, 40, 20 metres, plate and aerial meters; R1155 Receiver, speaker; all complete power supplies, 240 volts. BC221-D Crystal Freq. Meter, cal. chart, spare 100 Kc. crystal. £115 the lot. A. Girling, Dunedoo, N.S.W.

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**ONE** only AT13 Transmitter complete with all tubes, in first class order throughout. Enquiries to Box 75, Coonamble, N.S.W.

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**COULD** anyone supply circuit of G.E.C. RAX Receiver Type CG46117 (h.f. type 5-band 7-27 Mc.) or details of coil boxes. A. G. Loveday, Elimbah, Q.

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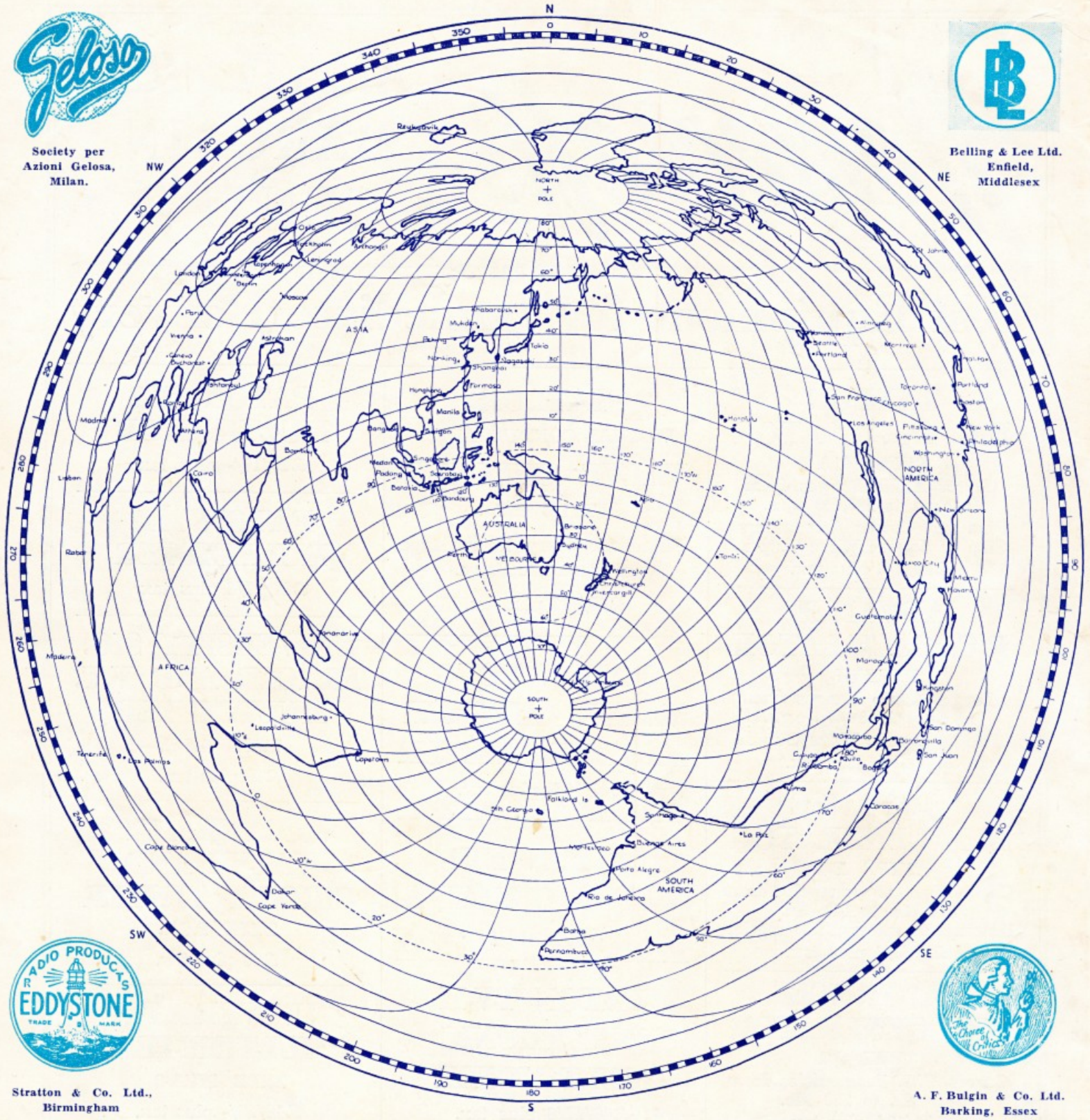
## A TRANSMITTER WITH LOW HARMONIC OUTPUT

(Continued from Page 11)

fiers. The writer took the different filament windings off and extended the primary winding to nearly twice the number of turns. So we now have the 2 x 500v. winding on the primary side of the modulator and the new 2 x 220v. winding on the p.a. stage side. The result is that just the correct ratio was achieved to get never more than 95% modulation if the p.a. and modulator valves are connected to the same plate voltage.

A small part of the modulator voltage is fed to the horizontal plates of the scope.

In Fig. 4 we see some switch positions for "c.w. or phone" operation to switch the filaments of all modulator amplifier valves and the scope off when working c.w. The "T or R" switch disconnects also the B plus of the receiver from the r.f. stages to prevent overloading. Here, too, the 1 megohm grid resistor of the r.f. stages limits grid current of the first receiver valve. Due to stray capacities around the transmitter antenna relay the co-ax antenna cable will still conduct some transmitter r.f. to the receiver. All wiring of modulator stages is done with shielded wire.






This Great Circle Bearing Map of the World is another service to Amateur Radio Operators from R. H. Cunningham Pty. Ltd.



0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10,000 11,000 12,000
SCALE IN MILES

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